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Forest Statistics for Connecticut—1972 and 1985

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ORIGINAL

Abstract

A statistical report on the third forest survey of Connecticut conducted in 1984 by the Forest Inventory and Analysis Unit, Northeastern Forest Experiment Station. Statistics for forest area, numbers of trees, timber volume, tree biomass, wildlife habitat, and timber products output are displayed at the state and county levels. The current inventory indicates that the state has approximately 2.8 billion cubic feet of growing-stock volume, or 159.7 million tons of net green weight of live trees, on 1.8 million acres of timberland. For use in trend analysis, this report includes estimates derived from reprocessing the 1972 data using current methods and standards.

Foreword

The third inventory of Connecticut was under the overall direction of John R. Peters, Project Leader of the Forest Inventory and Analysis Unit. Eric H. Wharton assisted in the development and administration of the operating plan. Charles T. Scott was responsible for the design of the inventory and sample selection. David J. Alerich supervised the interpretation of aerial photos and collection of data. He was assisted by Joseph G. Reddan. Members of the field staff were:

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David R. Dickson and Carol L. McAfee applied FINSYS (Forest INventory SYStem), a generalized data processing system, to the specific needs of the Connecticut inventory and produced summary tables for the state and counties. Thomas W. Birch and Carol L. McAfee were instrumental in assuring that the area estimates were consistent with the two previous inventories. Anne E. Cane prepared the tables in this report for printing.

Robert L. Nevel, Jr., Richard H. Widmann, and Eric H. Wharton, with the assistance of Stanley T. House, Connecticut Department of Environmental Protection, collected and compiled the data on timber products output and timber removals.

Carmela M. Hyland was responsible for administrative and secretarial services. Marie Pennestri typed the text for this report.

The Forest Inventory and Analysis Unit would like to thank the landowners of Connecticut for their cooperation and assistance during this inventory.

FOREST STATISTICS FOR CONNECTICUT--1972 AND 1985

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Highlights

* The report contains both 1985 and updated 1972 tables.

Forest Area

* Connecticut, with 1,826,000 acres of forest land, is 59 percent forested.

* Ninety-seven percent of Connecticut's forest land, 1,777,000 thousand acres, is classified as timberland (formerly known as commercial forest land).

* There has been no significant change in the area of either forest land or timberland since 1972.

* The area of sawtimber stands has increased 44 percent since the 1972 inventory; sawtimber stands now total 1,123,000 thousand acres or 63 percent of the timberland. A 40 percent decrease in the area of seedling and sapling stands has reduced these stands to 184,000 thousand acres, or 10 percent of the timberland.

* Eighty-eight percent of Connecticut's timberland is privately owned.

Timber Volume

* Growing-stock volume is 2,778 million cubic feet, an average of 1,563 cubic feet per acre. This is a 20 percent increase over the 1972 inventory.

* Sawtimber volume is 7,783 million board feet, an average of 4,379 board feet per acre. This is a 44 percent increase over the 1972 inventory.

* Red maple growing-stock volume has increased 55 percent between inventories, replacing northern red oak as the number one species. With 598 million cubic feet, red maple now accounts for over 21 percent of the growing-stock volume.

* Average annual net growth of growing-stock volume in Connecticut is 2.1 percent of the inventory.

Wildlife Habitat

* Tree mast in Connecticut is essentially an acorn resource, dominated by red oak species.

* White oaks are the most common standing dead tree species; northern red oak is the second most common.

* Red maple is the most common standing dead tree species with observed cavities, with northern red oak as the second most common.

* The most common live tree species with observed cavities is red maple, while sweet birch is in second place.

* Blueberries (Vaccinium spp.) are the most common understory woody-stemmed species in Connecticut.

* Browse use in Connecticut is infrequently observed and use is light when found. No major species is favored.

Biomass

* The net green weight of all live trees on timberland is 159.7 million tons or 89.8 tons per acre. Softwoods account for 22.2 million tons or 12.5 tons per acre; hardwoods account for 137.5 million tons or 77.4 tons per acre.

* Ninety-eight million tons, or 61 percent of the net green weight of all live trees, is in growing-stock material. Of the remaining 62 million tons of all-live-tree weight, 56 percent is in growing-stock tops, 24 percent is in saplings, and 12 percent is in the bole of cull trees.

* An additional 4.5 million tons of biomass is contained in salvable dead trees.

Introduction

Under the authority of the McSweeny-McNary Forest Research Act of 1928 and subsequent acts, including the Renewable Resources Planning Act of 1974 and the Renewable Resources Research Act of 1978, the USDA Forest Service conducts periodic forest inventories of all states to provide up-to-date information on the forest resource of the Nation. The initial inventory of Connecticut's resources was conducted in 1952. The second inventory was carried out in 1972. This report presents the forest resource data from the third inventory completed in 1984. This inventory involved a cooperative effort of the Connecticut Department of Environmental Protection, the USDA Soil Conservation Service, and the Northeastern Forest Experiment Station.

The Forest Inventory and Analysis Unit of the Northeastern Forest Experiment Station conducted the inventory on all forest land, developed the resource tables, and prepared this report.

The sampling procedure used during the current resurvey utilized aerial photography, the remeasurement of a sample of the ground plots established in the earlier inventories, and establishment of new ground plots. In Connecticut this required remeasurement of 200 plots from the earlier inventories, classification of 12,096 points on aerial photographs into land-use and cubic-foot volume classes, and establishment of 320 new ground plot locations as a subsample of the photo points. The data collected were summarized using the FINSYS computer system developed at the Northeastern Forest Experiment Station.

The resurvey of Connecticut's forest resources involved several associated studies and considerable analysis. Reports discussing the State's private forest-land owners and its primary forest products industry are being prepared. An additional report will also be published containing detailed 1985 biomass statistics.

The forest area, numbers of trees, timber volume, biomass, and wildlife habitat statistics shown in this report are but a summary of the information collected. Other information or additional summaries may be developed. For information about these, contact the Forest Inventory and Analysis Unit, USDA Forest Service, 370 Reed Road, Broomall, PA 19008 (phone 215-690-3037).

The four eastern Forest Experiment Stations have agreed to include a set of 25 core tables in each of their state resource bulletins. The format of any one of these tables will be identical for all 37 states in the Stations' territories. Rather than being grouped as a set, these core tables have been interspersed throughout this publication according to their level of data and content. A list of the core table numbers and their corresponding numbers as presented in this publication follows the index of tables.

Reliability of the Estimates

The data in this report were based on a carefully designed sample of forest conditions throughout Connecticut. However, because the field crews did not measure every tree or every acre in the state, the data are estimates. The reliability of the estimating procedure can be judged by two important statistical measures: accuracy and precision. Among statisticians, accuracy refers to the success of estimating the true value, precision refers to the clustering of sample values about their own averages or to the variation among repeated samples. We are mainly interested in the accuracy of the inventory, but in most cases we can only measure its precision.

Although accuracy cannot be measured exactly, it can be checked. Preliminary tables are sent to other agencies and to outside experts familiar with the resources of Connecticut. If questions arise, the data are reviewed and reanalyzed to resolve the differences. Also, great care is taken to keep all sources of procedural error to a minimum by careful training of both field and office personnel, frequent inspection of field and office work, and application of the most reliable inventory methods.

Because of the care exercised in the inventory process, estimates of precision afford a reasonable measure of the inventory's adequacy. The precision of each estimate is described by its sampling error. Sampling errors are given with several tables in this report. The others are available upon request.

Briefly, here is an example of how the sampling error is used to indicate reliability: The estimate of timberland for Connecticut is 1,777,000 acres. Its sampling error is 1.3 percent, or 23,000 acres. This means that if there are no errors in the procedure and we repeated the inventory in the same way, the odds are 2 to 1 (66 percent probability) that the estimate would be between 1,754,000 and 1,800,000 acres (1,777,000 $\pm$ 23,000). Similarly, the odds are 19 to 1 (95 percent probability) that the estimate would be within $\pm$ 46,000 acres. It is worth noting that the state estimates have the smallest sampling errors and therefore are the most precise or reliable. County estimates are less reliable. In Connecticut for example, the sampling error for the state area tables is 1.3 percent; while the sampling error for Hartford County is 6.2 percent. Thus, county level estimates are often considerably less reliable than state level estimates. In general, as the size of the estimate decreases in relation to the total, the sampling error, expressed as a percentage of the estimate, increases.

Comparison Between Inventories

To evaluate the condition of the forest resource, it is useful to compare the current estimates with those from the previous inventory. However, for the comparisons to be valid, the procedures used in the two inventories must be similar. As a result of our ongoing efforts to improve the efficiency of the inventory, we have made several changes in procedures and definitions since 1972.

Because these changes make the direct comparison of the 1985 estimates with those published by Dickson and Bowers (1976) inappropriate, data collected in 1972 have been reprocessed using the 1985 procedures and standards. Seven state-level tables containing the recalculated 1972 data have been included in this report. The tables provide area and volume data for comparison and trend analysis. They are printed in italic type to distinguish them from the current tables. Tables of recalculated data at the county level could not be provided because plots were selected at the state level in 1972; therefore, individual counties do not have enough plots to develop statistically sound data. The changes that have had an effect on the results of our computations follow:

The design used in this inventory, sampling with partial replacement, involved the establishment of new plots and the remeasurement of a sample of the previously measured plots. Thus estimates, particularly those of small segments of a population, may vary from occasion to occasion in part because of the change in the sample. For example, the area of a minor forest type may have been estimated at the previous occasion from only two or three plots; if those plots were not selected for remeasurement, the change from occasion to occasion would differ from the change based on a current sample that by chance did include those plots. The sampling errors presented in Table 57 should be used to determine the reliability of all estimates and particularly that of change in minor components.

A major change was made in the design of the plots established in 1984. In addition to the traditional data gathered to estimate forest area and tree volumes, information was collected to describe forest wildlife habitat, forest soils, and forest tree biomass.

New height and volume equations were developed for both growing stock and sawtimber (Scott 1979, 1981). These equations are derived by nonlinear regression techniques; in 1972 linear regression was used. The nonlinear method is used because it yields estimates with smaller errors between predicted and actual values.

Stand size is a classification of forest land based on the size of the trees that dominate an area, i.e., seedling/sapling, poletimber, sawtimber, or non-stocked. In the 1972 inventory only growing-stock trees were reconsidered in determining stand size; the 1985procedure considers all live trees. This change caused a shift in acres among classes, especially between seedling/sapling and poletimber.

The procedures used to determine forest type have also been modified. In 1972, plots on which red maple made up the plurality of stocking were classified as elm/ash/red maple. In 1985, such plots were examined more closely and according to their moisture class and the other species present, were placed in either the red maple/northern hardwoods, red maple/central hardwoods or elm/ash/red maple type.

The basic building block for estimating forest area and timber volume has been changed from the state level or geographic unit level, to the county level. In the past, the statistics were developed at the state or unit level and prorated back to the county level on the basis of distribution of photo-interpretation points. Direct development of county-level data helps users interested in more precise local data, but can make comparisons with past county estimates developed by the proration technique uncertain.

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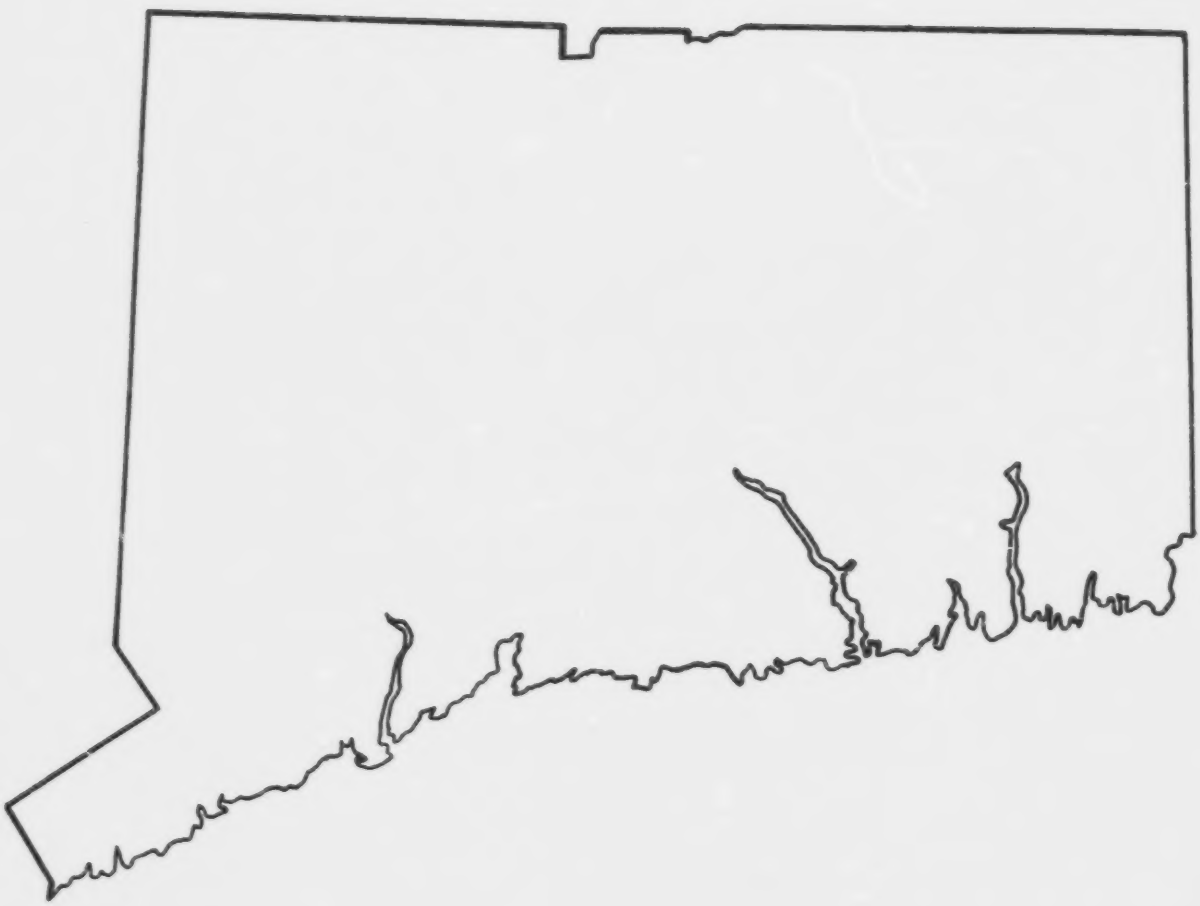

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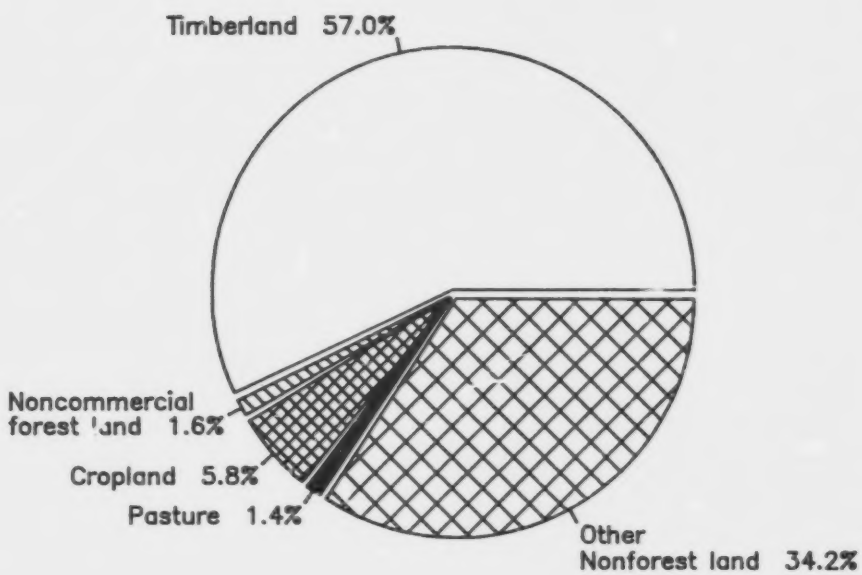

Table 1.--Land area by land class, Connecticut, 1985[a]

Land class	Area	
	Thousand acres	Percent
Timberland	1,777.3	57.0
Noncommercial forest land:		
Productive reserved	20.9	.7
Unproductive[b]	17.2	.6
Urban	10.3	.3
Total forest	1,825.7	58.6
Nonforest land:		
Cropland[c]	182.2	5.8
Pasture[c]	42.8	1.4
Other	1,067.2	34.2
Total nonforest	1,292.2	41.4
Total land area[d]	3,117.8	100.0

[a]Rows and columns in all tables may not sum due to rounding.
[b]Includes 2,070 acres of reserved unproductive land
[c]Source: 1982 Census of Agriculture.
[d]Source: 1981 United States Department of Commerce, Bureau of Census.

Table 2.--Area of timberland by forest type, forest-type group, and stand-size class, Connecticut, 1972[a]

(In thousands of acres)[b]

Forest type and forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Red pine	18.1	3.3	.0	.0	21.5
White pine	18.0	16.3	10.0	.0	44.3
White pine/hemlock	31.4	9.2	.0	.0	40.6
Hemlock	41.5	.0	.0	.0	41.5
White/red pine group	109.1	28.8	10.0	.0	147.9
Tamarack	.0	.0	.9	.0	.9
Spruce/fir group	.0	.0	.9	.0	.9
Eastern redcedar	.0	.0	15.0	.0	15.0
Pitch Pine	.0	14.3	.0	.0	14.3
Hard pine group	.0	14.3	15.0	.0	29.2
Wh. pine/no. red oak/wh. ash	30.3	1.6	.0	.0	31.9
Other Oak/pine	16.1	15.2	.0	.0	31.3
Oak/pine group	46.4	16.8	.0	.0	63.2
Post, black, or bear oak	51.2	90.9	15.2	.0	157.4
Chestnut oak	3.4	34.7	.9	.0	39.0
White oak/red oak/hickory	110.4	149.0	43.9	.0	303.4
White oak	32.1	17.6	13.9	.0	63.6
Northern red oak	141.1	114.7	57.7	.0	313.4
Yellow-poplar	14.3	.8	13.9	.0	29.0
Scarlet oak	15.5	16.8	2.6	.0	34.9
Red maple/central hardwoods	90.4	63.3	13.9	.0	167.6
Mixed central hardwoods	30.5	15.8	.0	.0	46.3
Oak/hickory group	488.9	503.6	162.0	.0	1,154.6
Black ash/Amer. elm/red maple	.0	43.7	.0	.0	43.7
Elm/ash/red maple group	.0	43.7	.0	.0	43.7
Sugar maple/beech/yellow birch	60.4	31.2	27.3	.0	119.0
Black cherry	.0	14.3	.0	.0	14.3
Red maple/northern hardwoods	30.5	36.7	44.8	.0	112.0
Pin cherry/reverting field	.0	.0	15.1	.0	15.1
Mixed northern hardwoods	43.6	33.0	29.0	.0	105.6
Northern hardwoods group	134.5	115.2	116.2	.0	365.9
All forest types	778.9	722.5	304.1	.0	1,805.5

[a] The data on all 1972 tables have been reprocessed so as to be comparable to 1985 data.
[b] In this and other tables, a zero indicates that the data are negligible or the condition was not encountered in the sample. A dash indicates that the condition is not possible under current Forest Service definitions.

Table 3.--Area of timberland by forest type, forest-type group, and stand-size class, Connecticut, 1985

(In thousands of acres)

Forest type and forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Red pine	8.9	.0	.0	.0	8.9
White pine	58.6	8.2	.0	.0	66.8
White pine/hemlock	27.8	.0	.0	.0	27.8
Hemlock	47.2	9.8	.0	.0	57.0
Scotch pine	5.1	.0	.0	.0	5.1
White/red pine group	147.6	18.0	.0	.0	165.6
Norway spruce	.0	5.4	9.1	.0	14.5
Spruce/fir group	.0	5.4	9.1	.0	14.5
Eastern redcedar	.0	13.1	6.2	.0	19.2
Hard pine group	.0	13.1	6.2	.0	19.2
Wh. pine/no. red oak/wh. ash	5.9	13.6	.0	.0	19.5
Eastern redcedar/hardwood	.0	7.1	.0	.0	7.1
Other oak/pine	9.9	5.4	6.2	.0	21.5
Oak/pine group	15.8	26.1	6.2	.0	48.1
Post, black, or bear oak	69.5	22.2	17.9	.0	109.6
Chestnut oak	6.7	21.5	.0	.0	28.3
White oak/red oak/hickory	147.8	55.3	5.2	.0	208.4
White oak	46.1	5.4	6.3	.0	57.8
Northern red oak	214.4	62.0	4.5	.0	280.8
Yellow-poplar	.0	6.3	10.9	.0	17.2
Hawthorn/reverting field	.0	.0	9.0	.0	9.0
Scarlet oak	30.2	22.7	5.1	.0	57.9
Red maple/central hardwoods	105.6	28.9	9.5	.0	144.0
Mixed central hardwoods	28.8	24.2	.0	.0	53.1
Oak/hickory group	649.2	248.6	68.3	.0	966.1
Black ash/American elm/red maple	42.1	45.1	35.1	.0	122.3
Willow	.0	.0	7.6	.0	7.6
Elm/ash/red maple group	42.1	45.1	42.7	0	129.9
Sugar maple/beech/yellow birch	77.7	26.9	.0	.0	104.6
Red maple/northern hardwoods	105.8	51.3	5.4	.0	162.5
Pin cherry/reverting field	.0	.0	12.5	9.9	22.3
Mixed northern hardwoods	84.8	26.3	33.4	.0	144.5
Northern hardwoods group	268.3	104.4	51.3	9.9	433.9
All forest types	1,123.0	460.7	183.8	9.9	1,777.3

Table 4.--Area of timberland by forest-type group and ownership class, Connecticut, 1985

(In thousands of acres)

Forest-type group	Ownership class				All classes
	National Forest	Other public	Forest industry	Other private	
White/red pine	.0	26.5	.0	139.1	165.6
Spruce/fir	.0	.0	.0	14.5	14.5
Hard pine	.0	.0	.0	19.2	19.2
Oak/pine	.0	.0	.0	48.1	48.1
Oak/hickory	.0	147.0	3.5	815.6	966.1
Elm/ash/red maple	.0	.0	.0	129.9	129.9
Northern hardwoods	.0	43.4	.0	390.5	433.9
Total, all groups	.0	216.9	3.5	1,556.9	1,777.3

Table 5.--Area of timberland by stand-size class and ownership class, Connecticut, 1985

(In thousands of acres)

Stand-size class	Ownership class				All classes
	National Forest	Other public	Forest industry	Other private	
Sawtimber	.0	165.8	3.5	953.7	1,123.0
Poletimber	.0	42.9	.0	417.8	460.7
Sapling and seedling	.0	8.3	.0	175.6	183.8
Nonstocked	.0	.0	.0	9.9	9.9
Total, all classes	.0	216.9	3.5	1,556.9	1,777.3

Table 6.--Area of timberland by board-foot stand-volume class and ownership class, Connecticut, 1985

(In thousands of acres)

Stand-volume class (board feet per acre)	Ownership class				All classes
	National Forest	Other public	Forest industry	Other private	
0 - 1,999	.0	21.7	3.5	473.8	499.0
2,000 - 3,999	.0	74.2	.0	384.7	458.9
4,000 - 5,999	.0	52.2	.0	280.9	333.1
6,000 - 7,999	.0	51.4	.0	227.3	278.6
8,000 - 9,999	.0	11.6	.0	84.2	95.8
10,000+	.0	5.9	.0	106.0	111.9
Total, all classes	.0	216.9	3.5	1,556.9	1,777.3

Table 7.- Area of timberland by stocking class of growing-stock trees and ownership class, Connecticut, 1985

(In thousands of acres)

Stocking class	Ownership class				All classes
	National Forest	Other public	Forest industry	Other private	
Nonstocked	.0	.0	.0	27.3	27.3
Poorly stocked	.0	12.3	.0	76.9	89.2
Moderately stocked	.0	34.3	.0	298.2	332.5
Fully stocked	.0	100.7	3.5	642.8	747.0
Overstocked	.0	69.6	.0	511.7	581.3
Total, all classes	.0	216.9	3.5	1,556.9	1,777.3

Table 8.--Area of timberland by forest-type group and cubic-foot stand-volume class, Connecticut, 1985

(In thousands of acres)

Forest-type group	Stand-volume class (cubic feet per acre)						All classes
	0-499	500-999	1000-1499	1500-1999	2000-2499	2500+	
White/red pine	8.2	.0	11.4	17.8	51.0	77.2	165.6
Spruce/fir	14.5	.0	.0	.0	.0	.0	14.5
Hard pine	6.2	13.1	.0	.0	.0	.0	19.2
Oak/pine	11.6	5.2	15.5	15.8	.0	.0	48.1
Oak/hickory	59.9	136.7	237.1	289.0	150.6	92.8	966.1
Elm/ash/red maple	41.9	17.0	45.8	20.2	.0	5.1	129.9
Northern hardwoods	50.5	48.5	106.8	90.3	88.2	49.6	433.9
Total, all groups	192.8	220.5	416.5	433.2	289.8	224.6	1,777.3

Table 9.--Area of timberland by forest-type group and board-foot stand-volume class, Connecticut, 1985

(In thousands of acres)

Forest-type group	Stand-volume class (board feet per acre)						All classes
	0-1999	2000-3999	4000-5999	6000-7999	8000-9999	10000+	
White/red pine	8.2	22.5	22.0	28.3	42.4	42.1	165.6
Spruce/fir	14.5	.0	.0	.0	.0	.0	14.5
Hard pine	19.2	.0	.0	.0	.0	.0	19.2
Oak/pine	24.0	8.4	15.8	.0	.0	.0	48.1
Oak/hickory	217.9	291.8	208.9	185.0	16.4	45.9	966.1
Elm/ash/red maple	92.0	20.2	12.6	.0	5.1	.0	129.9
Northern hardwoods	123.2	115.9	73.7	65.3	31.9	23.9	433.9
Total, all groups	499.0	458.9	333.1	278.6	95.8	111.9	1,777.3

Table 10.--Area of timberland by forest-type group and green ton stand-volume class[a], Connecticut, 1985

(In thousands of acres)

Forest-type group	Stand-volume class (green tons per acre)									All classes
	0-24	25-49	50-74	75-99	100-124	125-149	150-174	175-199	200+	
White/red pine	9.1	0.0	0.0	25.2	38.1	43.6	17.7	32.0	.0	165.6
Spruce/fir	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	.0	14.5
Hard pine	11.5	0.0	0.0	7.7	0.0	0.0	0.0	0.0	.0	19.2
Oak/pine	0.0	13.9	16.9	8.4	8.8	0.0	0.0	0.0	.0	48.1
Oak/hickory	41.5	28.0	221.2	365.2	223.2	57.0	20.3	9.7	.0	966.1
Elm/ash/red maple	45.3	11.3	21.0	52.2	0.0	0.0	0.0	0.0	.0	129.9
Northern hardwoods	29.5	18.2	93.3	121.9	106.7	56.0	0.0	8.2	.0	433.9
Total, all groups	137.0	86.0	352.5	580.6	376.8	156.5	38.0	49.9	.0	1,777.3

[a]All biomass estimates are derived from new plots only.

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Area of timberland by forest-type group, Connecticut, 1972 and 1985

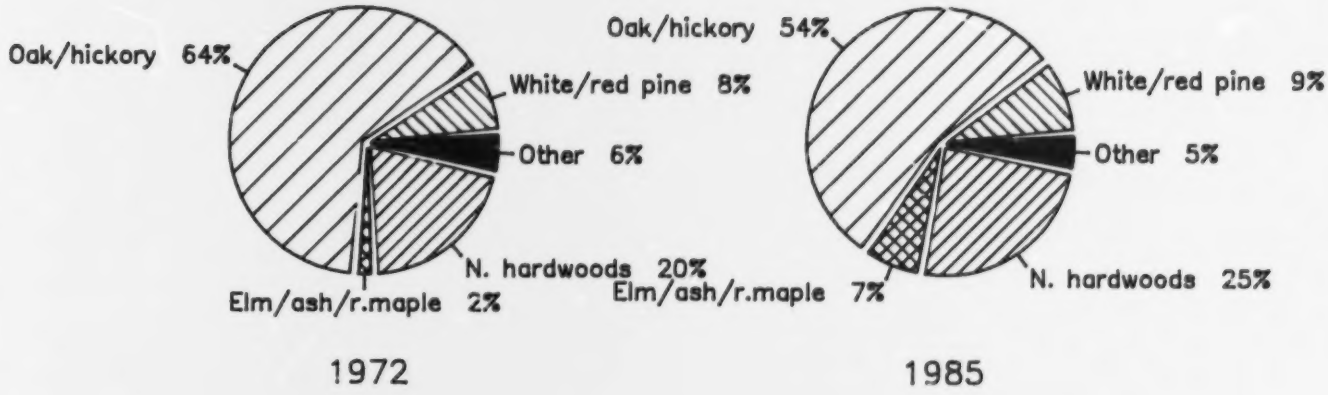

Table 11.--Area of timberland by forest-type group and stocking class of all live trees, Connecticut, 1972

(In thousands of acres)

Forest-type group	Stocking class					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Over-stocked	
White/red pine	.0	.0	2.0	53.3	92.6	147.9
Spruce/fir	.0	.0	.0	.9	0	.9
Hard pine	.0	15.0	14.3	.0	0	29.2
Oak/pine	.0	.0	.0	46.4	16.8	63.2
Oak/hickory	.0	14.3	231.2	733.4	175.6	1,154.6
Elm/ash/red maple	.0	.0	15.3	28.5	0	43.7
Northern hardwoods	.0	28.0	87.5	173.6	76.8	365.9
Total, all groups	.0	57.3	350.3	1,036.0	361.9	1,805.5

Table 12.--Area of timberland by forest-type group and stocking class of all live trees, Connecticut, 1985

(In thousands of acres)

Forest-type group	Stocking class					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Over-stocked	
White/red pine	.0	8.2	6.3	46.8	104.2	165.6
Spruce/fir	.0	5.4	.0	9.1	.0	14.5
Hard pine	.0	.0	6.3	12.9	.0	19.2
Oak/pine	.0	5.4	12.1	30.6	.0	48.1
Oak/hickory	.0	37.4	129.5	385.0	414.1	966.1
Elm/ash/red maple	.0	26.9	31.7	36.6	34.7	129.9
Northern hardwoods	9.9	12.0	75.8	168.2	168.1	433.9
Total, all groups	9.9	95.3	261.8	689.2	721.2	1,777.3

Table 13.--Area of timberland by forest-type group and stocking class of growing-stock trees, Connecticut, 1972

(In thousands of acres)

Forest-type group	Stocking class					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Over-stocked	
White/red pine	.0	.0	28.4	56.8	62.6	147.9
Spruce/fir	.0	.0	.9	.0	.0	.9
Hard pine	.0	15.0	14.3	.0	.0	29.2
Oak/pine	.0	0	.8	46.4	16.0	63.2
Oak/hickory	.0	44.8	469.5	543.5	96.8	1,154.6
Elm/ash/red maple	.0	.0	29.1	14.6	.0	43.7
Northern hardwoods	.0	70.1	192.0	100.4	3.4	365.9
Total, all groups	.0	129.9	735.1	761.7	178.8	1,805.5

Table 14.--Area of timberland by forest-type group and stocking class of growing-stock trees, Connecticut, 1985

(In thousands of acres)

Forest-type group	Stocking class					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Over-stocked	
White/red pine	.0	8.2	6.3	69.0	82.0	165.6
Spruce/fir	.0	5.4	.0	9.1	.0	14.5
Hard pine	.0	.0	6.3	6.7	6.2	19.2
Oak/pine	.0	5.4	12.1	30.6	.0	48.1
Oak/hickory	9.0	39.7	154.9	421.7	340.7	966.1
Elm/ash/red maple	8.4	18.5	38.4	41.8	22.8	129.9
Northern hardwoods	9.9	12.0	114.4	168.0	129.6	433.9
Total, all groups	27.3	89.2	332.5	747.0	581.3	1,777.3

Table 15.--Area of timberland by forest-type group and basal-area class (all live trees), Connecticut, 1985

(In thousands of acres)

Forest-type group	Basal-area class (square feet per acre)						All classes
	0-49	50-99	100-149	150-199	200-249	250+	
White/red pine	8.2	11.6	101.6	33.0	11.2	.0	165.6
Spruce/fir	5.4	9.1	.0	.0	.0	.0	14.5
Hard pine	12.5	.0	6.7	.0	.0	.0	19.2
Oak/pine	11.6	26.6	9.9	.0	.0	.0	48.1
Oak/hickory	60.0	490.7	387.3	28.0	.0	.0	966.1
Elm/ash/red maple	52.5	60.8	11.5	5.1	.0	.0	129.9
Northern hardwoods	50.7	187.4	163.1	25.9	6.7	.0	433.9
Total, all groups	201.0	786.2	680.2	92.0	17.9	0	1,777.3

Table 16.--Number of live trees on timberland by species and diameter class, Connecticut, 1985

(In thousands of trees)

Species	Diameter class (inches at breast height)												All classes
	1.0-2.9	3.0 4.9	5.0 6.9	7.0 8.9	9.0 10.9	11.0 12.9	13.0 14.9	15.0 16.9	17.0 18.9	19.0 20.9	21.0 28.9	29+	
Spruce/fir	1,979	5,938	901	0	0	0	0	27	0	0	0	0	8,846
Red pine	0	0	0	62	432	424	194	23	19	0	0	0	1,154
Pitch pine	0	0	528	248	152	90	0	0	0	0	0	0	1,019
White pine	12,251	2,413	4,031	2,937	1,524	1,426	775	348	424	147	348	69	26,693
Hemlock	23,046	9,252	7,397	4,560	2,599	2,173	1,208	558	621	273	303	41	52,031
Other softwoods	13,685	1,461	2,403	1,183	377	142	22	0	0	0	0	0	19,273
Total softwoods	50,961	19,064	15,260	8,990	5,083	4,255	2,199	956	1,065	421	651	110	109,015
Red maple	133,925	63,182	27,258	19,491	10,484	6,563	3,322	2,154	1,235	486	699	78	268,877
Sugar maple	40,993	14,842	3,389	2,447	1,604	1,136	601	364	181	186	208	24	65,975
Yellow birch	9,856	1,017	1,995	1,549	1,132	377	317	81	39	0	24	0	16,388
Sweet birch	37,571	23,639	9,586	6,746	3,025	1,960	844	486	184	17	25	0	84,083
Paper birch	0	0	1,098	961	149	111	57	25	0	0	0	0	2,400
Hickory	13,952	9,129	4,748	3,461	2,380	1,364	926	169	191	78	0	8	36,404
Beech	18,529	4,075	2,160	1,264	700	433	257	159	143	46	104	0	27,869
White ash	15,847	4,231	4,540	3,829	2,218	1,210	684	628	176	104	109	5	33,580
Aspen	3,381	1,699	863	780	270	239	75	0	0	0	5	4	7,317
Black cherry	6,198	1,699	2,541	973	593	240	154	50	18	0	0	0	12,467
White oaks	9,252	6,220	5,794	3,204	2,774	2,225	1,117	846	425	215	258	19	32,347
Northern red oak	11,277	1,699	5,285	5,473	4,859	4,544	3,320	2,222	1,248	503	575	57	41,060
Other red oaks	17,337	7,084	5,162	5,171	4,206	2,854	1,935	1,188	557	303	506	6	46,309
Elm	5,001	0	847	427	183	97	47	19	0	0	0	0	6,622
Other hardwoods	6,358	3,654	3,318	1,926	1,569	846	445	596	313	212	130	14	19,379
Noncomm. hardwoods	38,980	9,165	3,513	936	402	183	60	13	0	0	0	0	53,253
Total hardwoods	368,455	151,335	82,096	58,638	36,548	24,383	14,161	9,001	4,708	2,149	2,641	214	754,329
Total, all species	419,416	170,399	97,356	67,628	41,631	28,638	16,360	9,957	5,772	2,570	3,292	324	863,343

Table 17.--Number of live trees on timberland by diameter class, tree class, and species group, Connecticut, 1985

(In thousands of trees)

Diameter class	Growing Stock		Cull		Total
	Softwoods	Hardwoods	Softwoods	Hardwoods	
Seedlings	142,476.4	4,144,467.3	-	1,198,876.3	5,485,820.0
1.0- 2.9	50,960.9	329,475.0	-	38,980.4	419,416.3
3.0- 4.9	19,064.0	142,169.7	-	9,165.3	170,399.1
Total seedlings and saplings	212,501.3	4,616,112.0	-	1,247,022.0	6,075,635.3
5.0- 6.9	13,537.2	69,799.9	1,722.8	12,296.1	97,356.0
7.0- 8.9	8,747.0	53,460.5	242.9	5,177.4	67,627.8
9.0-10.9	-	34,353.0	-	2,195.4	36,548.4
Total poletimber	22,284.2	157,613.4	1,965.7	19,668.9	201,532.2
9.0-10.9	4,778.4	-	304.6	-	5,083.0
11.0-12.9	4,223.9	22,704.7	31.2	1,677.8	28,637.6
13.0-14.9	2,119.6	13,322.9	79.7	837.8	16,360.0
Total small sawtimber	11,121.9	36,027.6	415.5	2,515.5	50,080.5
15.0-16.9	956.0	8,564.1	0	436.4	9,956.5
17.0-18.9	971.7	4,480.7	93.2	226.8	5,772.4
19.0-20.9	420.7	2,052.5	0	96.7	2,569.9
21.0-28.9	643.9	2,343.3	7.0	298.0	3,292.2
29.0 and larger	95.3	144.4	14.8	69.7	324.3
Total larger sawtimber	3,087.6	17,585.0	115.0	1,127.7	21,915.3
All classes	248,995.0	4,827,338.1	2,496.1	1,270,334.2	6,349,163.4

Table 18.--Number of trees (5.0+ inches d.b.h.) on timberland by species and tree class, Connecticut, 1985

(In thousands of trees)

Species	Tree class								
	Preferred	Acceptable	All growing stock	Rough cull	Rotten cull	All live	Salvable dead	Nonsalvable dead	All classes
Spruce/fir	.0	928.2	928.2	.0	.0	928.2	0	0	928.2
Red pine	.0	1,153.6	1,153.6	.0	.0	1,153.6	0	123.7	1,277.3
Pitch pine	.0	950.3	950.3	.0	68.7	1,019.0	309.3	0	1,328.3
White pine	283.0	10,701.0	10,984.1	531.2	513.5	12,028.8	1,071.0	507.0	13,606.8
Hemlock	698.2	17,890.7	18,589.0	1,047.2	96.8	19,733.0	1,653.5	342.5	21,729.0
Other softwoods	.0	3,888.5	3,888.5	238.6	.0	4,127.1	346.5	343.0	4,816.6
Total softwoods	981.2	35,512.4	36,493.7	1,817.1	679.0	38,989.8	3,380.3	1,316.1	43,686.2
Red maple	493.9	63,033.3	63,527.2	5,559.3	2,683.3	71,769.8	1,282.9	1,538.3	74,591.0
Sugar maple	422.4	9,377.9	9,800.3	182.0	157.4	10,139.7	0	68.2	10,207.9
Yellow birch	77.2	4,075.9	4,153.1	664.6	697.0	5,514.8	65.3	382.9	5,963.0
Sweet birch	146.1	21,210.9	21,357.0	934.4	582.1	22,873.5	683.3	910.4	24,467.2
Paper birch	.0	2,297.8	2,297.8	102.1	.0	2,399.9	197.7	68.2	2,665.8
Hickory	667.2	12,088.3	12,755.5	484.1	84.2	13,323.9	174.5	350.7	13,349.1
Beech	0	4,801.8	4,801.8	398.8	64.8	5,265.4	0	29.5	5,294.9
White ash	467.4	12,429.9	12,897.2	448.9	155.8	13,502.0	1,149.9	236.5	14,888.4
Aspen	.0	1,907.5	1,907.5	274.8	54.4	2,236.7	412.1	138.4	2,787.2
Black cherry	.0	3,721.1	3,721.1	787.1	61.3	4,569.5	138.8	403.2	5,111.5
White oaks	440.5	15,097.5	15,538.0	1,058.7	278.9	16,875.6	2,684.2	2,361.7	21,921.5
Northern red oak	2,025.8	25,115.2	27,141.0	540.5	402.7	28,084.2	1,846.0	1,040.9	30,971.1
Other red oaks	523.3	20,346.0	20,869.3	579.3	439.1	21,887.7	1,816.5	952.1	24,656.3
Elm	.0	1,550.8	1,550.8	27.1	43.0	1,620.9	235.3	70.5	1,926.7
Other commercial hardwoods	478.3	8,430.1	8,908.4	404.5	54.8	9,367.7	677.7	468.4	10,513.8
Noncommercial hardwoods	.0	.0	.0	4,721.7	385.4	5,107.1	255.7	528.3	5,891.1
Total hardwoods	5,741.9	205,484.1	211,226.1	17,163.0	6,144.2	234,538.3	11,620.0	9,548.2	255,706.5
Total, all species	6,723.2	240,996.6	247,719.8	18,985.0	6,823.3	273,528.1	15,000.2	10,864.3	299,392.6

Table 19.--Number of growing-stock trees on timberland by species and diameter class, Connecticut, 1985

(In thousands of trees)

Species	Diameter class (inches at breast height)												All classes
	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29+	
Spruce/fir	1,979	5,938	901	0	0	0	0	27	0	0	0	0	8,846
Red pine	0	0	0	62	432	424	194	23	19	0	0	0	1,154
Pitch pine	0	0	460	248	152	90	0	0	0	0	0	0	950
White pine	12,251	2,413	3,359	2,816	1,348	1,426	750	348	393	147	341	54	25,648
Hemlock	23,046	9,252	6,580	4,487	2,492	2,142	1,153	558	559	273	303	41	50,887
Other softwoods	13,685	1,461	2,237	1,133	354	142	22	0	0	0	0	0	19,034
Total softwoods	50,961	19,064	13,537	8,747	4,778	4,224	2,120	956	972	421	644	95	106,519
Red maple	133,925	63,182	23,591	17,640	9,752	5,688	2,868	1,863	1,137	437	513	40	260,634
Sugar maple	40,993	14,842	3,295	2,361	1,548	1,108	601	345	149	186	208	0	65,635
Yellow birch	9,856	1,017	1,345	1,277	888	302	217	62	39	0	24	0	15,026
Sweet birch	37,571	23,639	8,902	6,318	2,876	1,751	826	459	184	17	25	0	82,567
Paper birch	0	0	1,059	897	149	111	57	25	0	0	0	0	2,298
Hickory	13,952	9,129	4,534	3,290	2,265	1,330	896	169	191	78	0	3	35,836
Beech	18,529	4,075	1,935	1,197	611	433	225	142	143	46	71	0	27,405
White ash	15,847	4,231	4,307	3,690	2,110	1,143	684	597	176	95	91	5	32,975
Aspen	3,381	1,699	813	501	270	239	75	0	0	0	5	4	6,988
Black cherry	6,198	1,699	1,848	899	554	240	129	50	0	0	0	0	11,619
White oaks	9,252	6,220	4,884	3,119	2,682	2,075	1,068	846	412	175	258	19	31,010
Northern red oak	11,277	1,699	4,768	5,310	4,724	4,544	3,299	2,205	1,181	503	551	57	40,117
Other red oaks	17,337	7,084	4,665	4,781	4,171	2,798	1,935	1,188	557	303	469	3	45,291
Elm	5,001	0	804	427	183	97	19	19	0	0	0	0	6,551
Other hardwoods	6,358	3,654	3,051	1,753	1,569	846	425	596	313	212	130	14	18,920
Total hardwoods	329,475	142,170	69,800	53,461	34,353	22,705	13,323	8,564	4,481	2,053	2,343	144	682,871
Total, all species	380,436	161,234	83,337	62,208	39,131	26,929	15,443	9,520	5,452	2,473	2,987	240	789,389

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Table 20.--Number of all live nut- and fruit-producing trees on timberland by species and diameter class, Connecticut, 1985

(In thousands of trees)

Species	Diameter class (inches at breast height)										All classes	Sampling error (percent)
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29+		
Eastern redcedar	2,245	873	219	87	22	0	0	0	0	0	3,445	34.0
Serviceberry	228	80	80	0	0	0	0	0	0	0	388	84.2
Hickory	4,748	3,461	2,380	1,364	926	168	191	78	0	8	13,324	13.6
American chestnut	96	0	0	0	0	0	0	0	0	0	96	71.4
Dogwood	514	144	0	0	0	0	0	0	0	0	658	43.3
Beech	2,160	1,264	700	433	256	159	143	46	104	0	5,265	17.4
Butternut	0	0	0	54	0	0	0	0	0	0	54	70.9
Apple	203	119	108	0	28	0	0	0	0	0	459	41.1
Blackgum	380	158	166	125	27	19	0	9	0	0	885	38.2
Eastern hophornbeam	224	0	0	36	0	0	0	0	0	0	260	53.1
Black cherry	2,541	973	593	240	154	50	18	0	0	0	4,569	22.1
Chokecherry	0	0	38	19	0	0	0	0	0	0	57	100.0
White oak	5,794	3,204	2,773	2,225	1,117	846	425	215	258	19	16,875	12.0
Scarlet oak	2,005	1,784	2,070	1,261	871	457	105	105	20	0	8,678	19.2
Swamp chestnut oak	0	0	0	0	0	28	0	0	0	0	28	100.0
Pin oak	100	0	0	22	22	0	0	26	52	0	222	58.6
Chestnut oak	2,508	1,484	1,079	558	209	218	64	44	19	0	6,183	30.2
Northern red oak	5,285	5,473	4,859	4,544	3,319	2,222	1,248	502	575	57	28,084	8.6
Black oak	3,057	3,387	2,135	1,572	1,042	731	452	171	433	6	12,987	12.8
Sassafrass	914	281	176	104	32	13	0	0	0	0	1,520	30.0
All species	33,003	22,686	17,377	12,643	8,026	4,911	2,645	1,197	1,462	89	104,039	5.4
Sampling error (percent)	9.8	8.1	7.8	7.3	8.3	9.8	11.9	15.2	13.5	44.2	5.4	

Table 21.--Number of shrubs and saplings on timberland by stand-size class, type of stem, and mast type, Connecticut, 1985[a]

(In thousands of stems)

Stand-size class and type of stem	Mast type			Other species	Total stems
	Nuts	Other seeds	Berries		
Sawtimber:					
Shrubs	224,047.0	1,348,114.5	5,117,725.1	1,247,618.5	7,937,505.1
Saplings	49,864.5	213,644.6	3,933.7	.0	267,442.8
Total sawtimber	273,911.5	1,561,759.1	5,121,658.8	1,247,618.5	8,204,947.9
Poletimber:					
Shrubs	39,797.6	1,035,567.5	2,966,670.1	505,653.2	4,547,688.4
Saplings	48,096.7	153,703.9	35,672.4	3,973.8	241,446.7
Total poletimber	87,894.3	1,189,271.4	3,002,342.5	509,627.0	4,789,135.1
Sapling/seedling:					
Shrubs	.0	227,270.7	1,588,889.9	444,801.4	2,260,962.0
Saplings	11,627.3	60,644.9	4,511.2	.0	76,783.5
Total sapling/seedling	11,627.3	287,915.6	1,593,401.1	444,801.4	2,337,745.5
Nonstocked:					
Shrubs	.0	.0	17,142.7	.0	17,142.7
Saplings	.0	2,142.8	.0	.0	2,142.8
Total nonstocked	.0	2,142.8	17,142.7	.0	19,285.5
Total, all classes	373,433.1	3,041,088.9	9,734,545.1	2,202,046.9	15,351,114.0

[a]The data in all wildlife habitat tables except Table 20 are derived from new plots only.

Table 22.--Number of standing dead trees on timberland by species, condition class, and diameter class, Connecticut, 1985

(In thousands of trees)

Species	Intact top				Broken top				Total all trees	Sampling error (percent)
	Diameter class (inches at breast height)				Diameter class (inches at breast height)					
	5.0-10.9	11.0-14.9	15+	Total	5.0-10.9	11.0-14.9	15+	Total		
Red pine	.0	.0	.0	.0	123.7	.0	.0	123.7	123.7	100
Pitch pine	137.4	34.7	.0	172.1	103.0	34.3	.0	137.2	309.3	90
White pine	690.3	32.8	27.9	751.0	684.3	90.8	51.9	827.0	1,578.0	39
Hemlock	1,019.7	69.4	40.8	1,129.8	691.6	132.0	42.6	866.2	1,996.0	30
Other softwoods	514.8	35.1	.0	549.9	139.6	.0	.0	139.6	689.5	49
Total softwoods	2,362.2	172.0	68.7	2,602.8	1,742.1	257.1	94.5	2,093.6	4,696.4	19
Red maple	978.8	36.4	.0	1,015.3	1,530.9	155.6	119.5	1,806.0	2,821.2	23
Sugar maple	.0	.0	.0	.0	68.2	.0	.0	68.2	68.2	100
Yellow birch	65.3	.0	.0	65.3	317.6	36.4	28.9	382.9	448.2	60
Sweet birch	278.7	62.5	.0	341.2	930.7	294.2	27.6	1,252.4	1,593.7	27
Paper birch	.0	.0	.0	.0	265.8	.0	.0	265.8	265.8	49
Hickory	174.5	.0	.0	174.5	317.4	33.3	.0	350.7	525.3	48
Beech	.0	.0	.0	.0	.0	29.5	.0	29.5	29.5	100
White ash	937.7	90.1	.0	1,027.9	322.7	35.8	.0	358.5	1,386.4	55
Aspen	262.8	.0	.0	262.8	287.6	.0	.0	287.6	550.5	77
Black cherry	68.2	.0	.0	68.2	456.0	17.9	.0	473.8	542.0	37
White oak	1,677.4	397.1	108.7	2,183.2	2,597.6	211.4	53.8	2,862.8	5,045.9	21
Northern red oak	1,530.7	243.0	97.9	1,871.6	791.1	164.4	59.9	1,015.4	2,887.0	29
Other red oaks	1,532.6	334.8	35.8	1,903.3	786.1	79.4	.0	865.4	2,768.7	30
Elm	235.3	.0	.0	235.3	.0	36.5	34.0	70.5	305.7	67
Other comm. hrdwds.	372.6	70.0	57.2	499.8	579.8	66.4	.0	646.2	1,146.0	34
Noncomm. hardwoods	203.0	.0	.0	203.0	409.8	160.7	10.5	581.0	784.0	28
Total hardwoods	8,317.7	1,234.0	299.6	9,851.4	9,661.2	1,321.4	334.1	11,316.8	21,168.2	10
Total, all species	10,679.9	1,406.0	368.3	12,454.2	11,403.3	1,578.5	428.6	13,410.4	25,864.6	8.8
Sampling error (percent)	14	23	30	13	11	17	27	9	8.8	

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Table 23.--Number of trees (5.0+ inches d.b.h.) with observed cavities on timberland by species and condition class, Connecticut, 1985

(In thousands of trees)

Species	Live				Total live	Dead		Total dead	Total all trees	Sampling error (percent)
	No cull	Intact live top	Broken top	Dead top		Intact top	Broken top			
Red pine	.0	.0	.0	.0	.0	.0	123.7	123.7	123.7	100
Pitch pine	.0	.0	.0	.0	.0	34.7	.0	34.7	34.7	100
White pine	33.4	13.9	.0	.0	47.2	102.3	420.6	522.9	570.1	41
Hemlock	.0	66.2	64.0	29.1	159.4	69.4	353.8	423.2	582.6	56
Other softwoods	284.7	68.2	.0	.0	352.8	35.1	.0	35.1	387.9	49
Total softwoods	318.0	148.2	64.0	29.1	559.4	241.5	898.1	1,139.6	1,699.0	24
Red maple	9,050.4	2,835.9	543.6	210.5	12,640.4	504.1	1,069.7	1,573.8	14,214.2	12
Sugar maple	606.7	330.5	.0	.0	937.2	.0	68.2	68.2	1,005.3	28
Yellow birch	515.7	1,121.9	98.0	79.3	1,815.0	.0	314.7	314.7	2,129.7	36
Sweet birch	1,836.7	919.5	49.8	33.3	2,839.4	74.8	878.3	953.1	3,792.5	21
Paper birch	58.5	66.2	.0	.0	124.7	.0	131.4	131.4	256.1	49
Hickory	889.0	6.4	.0	.0	895.4	.0	100.1	100.1	995.5	25
Beech	519.6	29.1	29.1	.0	577.9	.0	29.5	29.5	607.4	53
White ash	784.7	36.5	.0	.0	821.1	640.7	224.8	865.5	1,686.6	36
Aspen	49.4	.0	.0	.0	49.4	.0	.0	.0	49.4	75
Black cherry	327.9	39.7	17.9	.0	385.4	68.2	285.8	354.0	739.3	35
White oak	352.9	90.0	.0	.0	442.9	185.5	790.3	975.8	1,418.8	31
Northern red oak	1,763.4	286.3	130.1	26.2	2,206.0	607.7	427.4	1,035.2	3,241.1	19
Other red oaks	907.8	110.9	.0	.0	1,018.8	84.3	336.9	421.2	1,439.9	27
Elm	36.5	.0	.0	.0	36.5	.0	70.5	70.5	106.9	75
Other comm. hrdwds.	483.9	273.2	.0	.0	757.1	156.3	202.7	359.0	1,116.1	36
Noncomm. hardwoods	204.0	379.4	68.2	.0	651.5	136.1	373.0	509.1	1,160.7	30
Total hardwoods	18,387.0	6,525.6	936.7	349.4	26,198.6	2,457.7	5,303.3	7,761.0	33,959.7	7
Total, all species	18,705.0	6,673.8	1,000.7	378.5	26,758.0	2,699.2	6,201.4	8,900.6	35,658.7	6.6
Sampling error (percent)	7	14	27	41	7	25	14	12	6.6	

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Table 24.--Number of seedlings, saplings, and shrubs on timberland by species and stand-size class, Connecticut, 1985

(In millions of stems)

Species	Stand-size class				All classes	Percent saplings
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
Eastern redcedar	3.6	33.2	.0	.0	36.8	43
Spruce species	.0	.0	7.9	.0	7.9	100
Pitch pine	.0	1.8	.0	.0	1.8	0
Eastern white pine	64.7	11.6	4.7	.0	81.0	15
Eastern hemlock	42.6	2.0	.0	.0	44.6	38
Total softwoods	110.9	48.5	12.7	.0	172.1	
Red maple	663.2	368.2	89.8	.0	1,121.1	18
Sugar maple	329.0	57.4	102.4	6.4	495.2	14
Other maple species	33.1	4.0	2.0	.0	39.0	5
Serviceberry	38.0	64.1	.0	.0	102.1	10
Yellow birch	120.3	28.2	9.6	.0	158.1	8
Sweet birch	195.9	135.7	38.4	.0	370.1	17
Paper birch	17.7	.0	.0	.0	17.7	0
Gray birch	29.8	16.2	2.1	.0	48.0	9
American hornbeam	147.0	38.7	2.1	.0	187.7	4
Hickory species	88.4	93.7	15.9	.0	198.0	10
American chestnut	107.3	13.6	7.9	.0	128.8	6
Flowering dogwood	38.5	11.7	2.1	.0	52.3	4
Hawthorn	6.3	.0	.0	.0	6.3	0
American beech	101.7	23.9	.0	.0	125.6	16
White ash	186.3	47.3	58.2	.0	291.8	5
Other ash species	.0	12.8	.0	.0	12.8	17
Yellow-poplar	4.3	.0	.0	.0	4.3	51
Apple species	2.1	.0	7.0	.0	9.2	0
Blackgum	7.9	18.8	.0	.0	26.7	31
Eastern hophornbeam	231.8	16.4	69.3	.0	317.5	3
Aspen species	29.0	3.9	21.3	.0	54.1	11
Pin cherry	10.1	4.2	.0	.0	14.3	0
Black cherry	360.5	176.3	91.7	.0	628.6	1
Chokecherry	19.9	49.8	.0	.0	69.7	0
White oak	142.5	78.3	12.4	.0	233.2	4
Scarlet oak	15.8	19.7	.0	.0	35.5	16
Bear oak	4.0	.0	.0	.0	4.0	0
Chestnut oak	23.1	48.0	.0	.0	71.1	3
Northern red oak	171.0	117.4	4.1	.0	292.4	4
Black oak	80.1	56.0	64.3	.0	200.4	12
Willow species	.0	9.8	54.4	.0	64.2	0
Sassafras	72.5	138.4	13.9	.0	224.9	1
American basswood	14.1	.0	.0	.0	14.1	0
American elm	4.3	20.0	1.3	.0	25.5	22
Other hardwoods	30.4	4.0	.0	.0	34.4	10
Total hardwoods	3,325.6	1,676.4	670.2	6.4	5,678.7	
Total trees	3,436.5	1,725.0	682.9	6.4	5,850.8	

Table 24.(Cont'd.)--Number of seedlings, saplings, and shrubs on timberland by species and stand-size class, Connecticut, 1985

(In millions of stems)

Species	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Common juniper	9.0	1.7	.0	.0	10.7
Sheep laurel	144.2	23.6	4.2	.0	172.0
Mountain laurel	433.6	275.1	17.9	.0	726.5
Other evergreen shrubs	.0	1.9	1.3	.0	3.2
Total evergreen shrubs	586.7	302.4	23.3	.0	912.4
Alder	99.2	201.4	65.9	.0	366.5
Azalea	8.2	75.0	.0	.0	83.2
Barberry	503.4	84.1	213.1	.0	800.7
Sweetfern	9.9	.0	.0	.0	9.9
Silky dogwood	3.8	.0	24.0	.0	27.8
Other dogwood species	87.5	94.8	165.5	.0	347.8
American hazelnut	159.6	39.8	.0	.0	199.4
Beaked hazelnut	64.5	.0	.0	.0	64.5
Huckleberry species	104.8	137.1	14.6	.0	256.5
Witch-hazel	349.4	133.6	27.6	.0	510.6
Winterberry holly	8.2	10.3	.0	.0	18.5
Common spicebush	598.5	186.1	50.1	.0	834.8
Bush honeysuckle	120.1	6.0	188.8	.0	314.9
Buckthorn	17.4	4.0	2.1	.0	23.6
Sumac species	.0	19.0	33.7	2.1	54.9
Rose species	58.4	18.8	61.7	.0	138.8
Rubus species	318.2	98.4	540.6	15.0	972.2
American elderberry	.0	9.0	11.9	.0	20.9
Spirea species	297.5	318.6	111.8	.0	727.9
Blueberry species	1,340.2	1,744.1	190.3	.0	3,274.6
Maple-leaf viburnum	1,505.9	378.8	.0	.0	1,884.7
Hobblebush viburnum	51.6	31.9	23.8	.0	107.3
Wild raisin, witherod	2.0	.0	.0	.0	2.0
Arrowwood	262.7	99.6	62.0	.0	424.4
Other viburnum species	114.1	43.1	6.6	.0	163.8
Other deciduous shrubs	1,265.5	511.9	443.5	.0	2,220.9
Total deciduous shrubs	7,350.8	4,245.3	2,237.7	17.1	13,850.9
All species	11,374.0	6,272.6	2,943.8	23.6	20,614.1
Sampling error (percent)	8	14	31	100	5.8

Table 25.--Number of seedlings, saplings, and shrubs on timberland by species and forest-type group, Connecticut, 1985

(In millions of stems)

Species	Forest-type group							All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	
Eastern redcedar	.0	.0	25.3	1.9	9.5	.0	.0	36.8
Spruce species	.0	7.9	.0	.0	.0	.0	.0	7.9
Pitch pine	.0	.0	.0	.0	1.8	.0	.0	1.8
Eastern white pine	40.7	.0	2.0	14.0	16.4	.0	8.0	81.0
Eastern hemlock	27.2	.0	.0	.0	5.7	.0	11.7	44.6
Total softwoods	67.8	7.9	27.3	15.9	33.4	.0	19.7	172.1
Red maple	98.0	.0	18.9	77.2	637.3	45.0	244.8	1,121.1
Sugar maple	3.8	.0	11.9	3.8	232.2	2.1	241.4	495.2
Other maple species	.0	.0	.0	.0	35.0	.0	4.0	39.0
Serviceberry	.0	.0	.0	.0	51.6	.0	50.5	102.1
Yellow birch	4.1	.0	.0	.0	107.2	9.6	37.2	158.1
Sweet birch	14.0	.0	.0	40.0	238.3	3.9	73.8	370.1
Paper birch	.0	.0	.0	.0	17.7	.0	.0	17.7
Gray birch	.0	.0	.0	.0	39.4	.0	8.7	48.0
American hornbeam	.0	.0	.0	.0	138.9	.0	48.8	187.7
Hickory species	7.2	.0	.0	36.1	120.9	.0	33.8	198.0
American chestnut	.0	.0	.0	.0	115.3	.0	13.6	128.8
Flowering dogwood	.0	.0	.0	.0	46.3	.0	6.0	52.3
Hawthorn	.0	.0	.0	.0	6.3	.0	.0	6.3
American beech	11.7	.0	.0	.0	77.6	4.1	32.2	125.6
White ash	3.9	2.0	3.8	5.8	174.0	3.9	98.6	291.8
Other ash species	.0	.0	.0	.0	.0	.0	12.8	12.8
Yellow-poplar	.0	.0	.0	.0	2.2	.0	2.1	4.3
Apple species	.0	.0	.0	.0	7.0	.0	2.1	9.2
Blackgum	.0	.0	.0	.0	11.6	.0	15.1	26.7
Eastern hophornbeam	9.0	.0	.0	.0	258.4	.0	50.2	317.5
Aspen species	5.2	.0	.0	.0	30.7	5.8	12.4	54.1
Pin cherry	.0	.0	.0	.0	.0	.0	14.3	14.3
Black cherry	5.5	.0	12.1	27.9	275.5	20.8	286.7	628.6
Chokecherry	.0	.0	.0	19.7	31.4	.0	18.6	69.7
White oak	22.3	.0	.0	15.7	170.4	.0	24.8	233.2
Scarlet oak	3.8	.0	.0	9.8	22.0	.0	.0	35.5
Bear oak	.0	.0	.0	.0	4.0	.0	.0	4.0
Chestnut oak	1.7	.0	.0	.0	57.2	.0	12.1	71.1
Northern red oak	21.8	.0	2.0	1.9	204.6	.0	62.1	292.4
Black oak	9.1	.0	5.2	5.8	168.0	2.2	10.1	200.4
Willow species	.0	.0	.0	.0	.0	54.4	9.8	64.2
Sassafras	.0	.0	.0	13.7	195.6	.0	15.6	224.9
American basswood	.0	.0	.0	.0	12.2	.0	1.9	14.1
American elm	.0	.0	1.3	.0	4.3	.0	20.0	25.5
Other hardwoods	3.6	.0	4.0	.0	4.1	.0	22.7	34.4
Total hardwoods	224.7	2.0	59.1	257.5	3,497.1	151.7	1,486.6	5,678.7
Total trees	292.5	9.9	86.4	273.4	3,530.5	151.7	1,506.3	5,850.8

Table 25.(Cont'd.)--Number of seedlings, saplings, and shrubs on timberland by species and forest-type group, Connecticut, 1985

(In millions of stems)

Species	Forest-type group							All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	
Common juniper	.0	.0	1.7	.0	9.0	.0	.0	10.7
Sheep laurel	.0	.0	.0	82.8	63.1	26.1	.0	172.0
Mountain laurel	53.2	.0	29.5	.0	439.8	.0	204.0	726.5
Other evergreen shrubs	.0	.0	1.3	.0	1.9	.0	.0	3.2
Total evergreen shrubs	53.2	.0	32.5	82.8	513.8	26.1	204.0	912.4
Alder	34.9	.0	.0	.0	105.7	154.6	71.2	366.5
Azalea	.0	.0	.0	.0	71.1	.0	12.1	83.2
Barberry	27.3	.0	.0	.0	127.9	4.4	641.1	800.7
Sweetfern	7.9	.0	.0	.0	1.9	.0	.0	9.9
Silky dogwood	.0	.0	.0	.0	27.8	.0	.0	27.8
Other dogwood species	1.9	.0	.0	81.0	50.2	48.1	166.5	347.8
American hazelnut	4.0	.0	.0	.0	185.5	6.0	3.9	199.4
Beaked hazelnut	.0	.0	.0	.0	42.7	.0	21.7	64.5
Huckleberry species	.0	.0	.0	.0	256.5	.0	.0	256.5
Witch-hazel	2.0	.0	.0	.0	335.9	2.0	170.7	510.6
Winterberry holly	.0	.0	.0	.0	6.2	4.1	8.2	18.5
Common spicebush	14.7	.0	1.3	5.9	437.8	88.8	286.3	834.8
Bush honeysuckle	.0	.0	2.0	.0	187.5	18.4	107.1	314.9
Buckthorn	.0	.0	4.0	.0	.0	.0	19.6	23.6
Sumac species	.0	.0	30.0	1.3	5.0	8.2	10.5	54.9
Rose species	.0	.0	23.8	.0	40.1	14.9	60.0	138.8
Rubus species	22.2	.0	.0	.0	305.7	42.3	602.0	972.2
American elderberry	.0	.0	.0	.0	.0	.0	20.9	20.9
Spirea species	60.3	.0	10.2	10.2	293.4	159.7	194.1	727.9
Blueberry species	177.9	.0	11.3	198.1	2,277.8	145.2	464.3	3,274.6
Maple-leaf viburnum	19.2	.0	.0	48.3	1,478.1	24.1	315.0	1,884.7
Hobblebush viburnum	.0	.0	23.8	6.1	36.4	19.2	21.8	107.3
Wild raisin, witherod	.0	.0	.0	2.0	.0	.0	.0	2.0
Arrowwood	.0	.0	.0	7.9	112.2	24.4	279.9	424.4
Other viburnum species	.0	.0	.0	17.6	12.9	103.6	29.7	163.8
Other deciduous shrubs	3.9	2.0	3.8	17.9	1,052.7	776.1	364.6	2,220.9
Total deciduous shrubs	376.2	2.0	110.1	396.3	7,451.0	1,644.2	3,871.1	13,850.9
All species	721.9	11.9	228.9	752.5	11,495.4	1,822.0	5,581.5	20,614.1
Sampling error (percent)	28	100	59	43	9	30	18	5.8

Table 26.--Number of seedlings, saplings, and shrubs on timberland by species and browse-utilization class, Connecticut, 1985

(In millions of stems)

Species	Browse-utilization class				All classes	Sampling error (percent)
	None	Light	Moderate	Heavy		
Eastern redcedar	36.8	.0	.0	.0	36.8	62
Spruce species	7.9	.0	.0	.0	7.9	100
Pitch pine	1.8	.0	.0	.0	1.8	100
Eastern white pine	73.7	7.3	.0	.0	81.0	31
Eastern hemlock	44.6	.0	.0	.0	44.6	37
Total softwoods	164.8	7.3	.0	.0	172.1	23
Red maple	871.1	175.9	74.1	.0	1,121.1	12
Sugar maple	393.8	75.6	25.8	.0	495.2	23
Other maple species	9.8	25.3	3.9	.0	39.0	50
Serviceberry	74.3	7.9	19.9	.0	102.1	48
Yellow birch	110.1	37.0	11.0	.0	158.1	23
Sweet birch	281.0	82.0	7.0	.0	370.1	18
Paper birch	7.7	9.9	.0	.0	17.7	57
Gray birch	37.9	10.2	.0	.0	48.0	58
American hornbeam	126.3	45.7	.0	15.7	187.7	27
Hickory species	179.5	10.4	8.0	.0	198.0	23
American chestnut	111.2	17.7	.0	.0	128.8	27
Flowering dogwood	37.0	15.4	.0	.0	52.3	40
Hawthorn	4.4	1.9	.0	.0	6.3	76
American beech	99.0	18.3	8.3	.0	125.6	24
White ash	232.0	37.5	20.4	1.9	291.8	20
Other ash species	8.8	.0	4.0	.0	12.8	76
Yellow-poplar	4.3	.0	.0	.0	4.3	71
Apple species	9.2	.0	.0	.0	9.2	80
Blackgum	20.8	2.1	3.9	.0	26.7	56
Eastern hophornbeam	293.3	20.2	4.0	.0	317.5	30
Aspen species	43.9	10.2	.0	.0	54.1	33
Pin cherry	6.1	8.2	.0	.0	14.3	59
Black cherry	475.5	121.8	25.7	5.6	628.6	18
Chokecherry	31.8	33.8	4.1	.0	69.7	37
White oak	184.6	44.8	3.9	.0	233.2	18
Scarlet oak	19.8	15.7	.0	.0	35.5	41
Bear oak	4.0	.0	.0	.0	4.0	100
Chestnut oak	47.4	23.6	.0	.0	71.1	38
Northern red oak	242.0	48.4	.0	2.1	292.4	21
Black oak	162.2	36.2	.0	2.0	200.4	25
Willow species	64.2	.0	.0	.0	64.2	85
Sassafras	175.5	47.3	2.1	.0	224.9	23
American basswood	14.1	.0	.0	.0	14.1	87
American elm	23.3	2.2	.0	.0	25.5	72
Other hardwoods	30.2	.0	.0	4.1	34.4	66
Total hardwoods	4,436.2	985.0	226.1	31.4	5,678.7	7
Total trees	4,601.0	992.4	226.1	31.4	5,850.8	7.1

Table 26.(Cont'd.)--Number of seedlings, saplings, and shrubs on timberland by species and browse-utilization class, Connecticut, 1985

(In millions of stems)

Species	Browse-utilization class				All classes	Sampling error (percent)
	None	Light	Moderate	Heavy		
Common juniper	10.7	.0	.0	.0	10.7	85
Sheep laurel	167.8	4.2	.0	.0	172.0	52
Mountain laurel	697.1	29.5	.0	.0	726.5	24
Other evergreen shrubs	3.2	.0	.0	.0	3.2	72
Total evergreen shrubs	878.8	33.6	.0	.0	912.4	21
Alder	358.2	.0	8.2	.0	366.5	39
Azalea	71.7	.0	11.5	.0	83.2	74
Barberry	800.7	.0	.0	.0	800.7	42
Sweetfern	7.9	.0	1.9	.0	9.9	83
Silky dogwood	3.8	5.2	18.8	.0	27.8	87
Other dogwood species	292.3	11.6	43.8	.0	347.8	33
American hazelnut	183.6	15.8	.0	.0	199.4	48
Beaked hazelnut	44.6	19.9	.0	.0	64.5	66
Huckleberry species	256.5	.0	.0	.0	256.5	68
Witch-hazel	447.3	63.3	.0	.0	510.6	18
Winterberry holly	8.2	6.2	4.1	.0	18.5	58
Common spicebush	535.0	265.5	34.2	.0	834.8	21
Bush honeysuckle	272.3	42.6	.0	.0	314.9	59
Buckthorn	17.6	2.0	.0	4.0	23.6	69
Sumac species	54.9	.0	.0	.0	54.9	47
Rose species	120.1	18.7	.0	.0	138.8	40
Rubus species	660.0	306.3	4.0	2.0	972.2	51
American elderberry	9.8	.0	3.1	7.9	20.9	65
Spirea species	415.0	312.9	.0	.0	727.9	31
Blueberry species	2,544.3	663.9	66.4	.0	3,274.6	16
Maple-leaf viburnum	1,164.2	580.2	111.5	28.8	1,884.7	16
Hobblebush viburnum	86.0	4.3	.0	17.0	107.3	36
Wild raisin, witherod	2.0	.0	.0	.0	2.0	100
Arrowwood	350.5	48.7	25.1	.0	424.4	31
Other viburnum species	160.7	3.1	.0	.0	163.8	56
Other deciduous shrubs	1,963.1	245.0	12.9	.0	2,220.9	21
Total deciduous shrubs	10,830.3	2,615.2	345.6	59.7	13,850.9	7
All species	16,310.1	3,641.2	571.6	91.1	20,614.1	5.8
Sampling error (percent)	6	14	21	34	5.8	

Table 27.--Number of trees (5.0+ inches d.b.h.) with observed cavities on timberland by species and presence of cavities, Connecticut, 1985

(In thousands of trees)

Species	Live trees				Dead trees				Total all trees
	Presence of cavities				Presence of cavities				
	One or more small	One or more large	Multiple large or small	Total live	One or more small	One or more large	Multiple large or small	Total dead	
Red pine	.0	.0	.0	.0	.0	.0	123.7	123.7	123.7
Pitch pine	.0	.0	.0	.0	.0	34.7	.0	34.7	34.7
White pine	33.4	.0	13.9	47.2	239.3	.0	283.6	522.9	570.1
Hemlock	.0	.0	159.4	159.4	165.9	114.2	143.1	423.2	582.6
Other softwoods	192.4	126.4	34.0	352.8	.0	.0	35.1	35.1	387.9
Total softwoods	225.8	126.4	207.2	559.4	405.2	148.9	585.5	1,139.6	1,699.0
Red maple	6,398.7	4,241.0	1,900.7	12,640.4	362.6	819.5	391.7	1,573.8	14,214.2
Sugar maple	374.9	358.6	203.6	937.2	.0	.0	68.2	68.2	1,005.3
Yellow birch	235.2	987.8	592.0	1,815.0	249.4	.0	65.3	314.7	2,129.7
Sweet birch	1,089.2	1,272.6	477.5	2,839.4	687.6	37.3	228.2	953.1	3,792.5
Paper birch	66.2	58.5	.0	124.7	131.4	.0	.0	131.4	256.1
Hickory	437.2	347.5	110.7	895.4	66.8	33.3	.0	100.1	995.5
Beech	217.5	302.1	58.3	577.9	29.5	.0	.0	29.5	607.4
White ash	511.8	239.8	69.5	821.1	495.0	334.7	35.8	865.5	1,686.6
Aspen	33.6	15.8	.0	49.4	.0	.0	.0	.0	49.4
Black cherry	310.0	35.7	39.7	385.4	209.5	68.2	76.3	354.0	739.3
White oaks	262.1	151.9	28.9	442.9	624.1	187.6	164.1	975.8	1,418.8
Northern red oak	843.5	1,018.5	344.0	2,206.0	591.2	198.5	245.4	1,035.2	3,241.1
Other red oaks	450.0	474.9	93.8	1,018.8	385.4	35.8	.0	421.2	1,439.9
Elm	.0	36.5	.0	36.5	.0	.0	70.5	70.5	106.9
Other commercial hardwoods	564.8	121.9	70.4	757.1	90.3	231.5	37.3	359.0	1,116.1
Noncommercial hardwoods	444.6	170.8	36.2	651.5	255.6	.0	253.5	509.1	1,160.7
Total hardwoods	12,239.3	9,934.0	4,025.3	26,198.6	4,178.3	1,946.4	1,636.3	7,761.0	33,959.7
Total, all species	12,465.1	10,060.4	4,232.5	26,758.0	4,583.5	2,095.2	2,221.9	8,900.6	35,658.7

Table 28.--Net green weight of all live trees on timberland by species and diameter class, Connecticut, 1985

(In thousands of tons)

Species	Diameter class (inches at breast height)										All classes
	1.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21+	
Spruce/fir	361.5	111.2	.0	.0	.0	.0	.0	.0	.0	.0	472.7
Red pine	.0	.0	21.7	243.5	378.3	239.5	45.5	75.5	.0	.0	1,004.0
Pitch pine	.0	59.8	45.9	42.5	32.6	.0	.0	.0	.0	.0	180.7
White pine	143.3	438.3	951.4	1,041.5	1,476.7	1,095.0	585.6	991.3	276.9	1,841.1	8,841.0
Hemlock	399.1	943.3	1,229.5	1,085.6	1,341.1	1,196.0	784.6	1,276.0	648.2	1,891.6	10,794.9
Other softwoods	241.2	248.6	227.6	78.0	75.1	16.9	.0	.0	.0	.0	887.3
Total softwoods	1,145.1	1,801.1	2,476.1	2,491.1	3,303.8	2,547.3	1,415.7	2,342.7	925.1	3,732.7	22,180.7
Red maple	5,391.3	4,521.3	6,215.5	5,221.2	4,604.6	3,516.3	3,010.7	1,912.9	1,078.4	3,337.8	38,810.1
Sugar maple	1,674.5	627.0	708.2	1,062.6	563.4	560.5	442.6	350.8	414.7	1,048.2	7,472.6
Yellow birch	144.6	392.0	558.8	618.3	347.0	433.0	13.0	43.8	.0	143.1	2,693.6
Sweet birch	2,279.5	1,638.3	2,403.3	2,123.8	1,865.3	1,015.9	636.4	476.0	89.5	102.5	12,630.3
Paper birch	.0	224.8	341.0	31.2	127.1	50.4	68.3	.0	.0	.0	842.8
Hickory	606.2	652.6	836.4	957.5	922.4	998.5	226.2	384.9	257.4	99.4	5,941.6
Beech	437.2	344.3	333.0	248.4	328.0	143.3	274.6	198.8	202.1	406.5	2,916.3
White ash	248.4	710.5	1,381.6	1,141.3	1,054.2	906.5	895.2	437.3	130.9	565.0	7,470.9
Aspen	114.9	158.2	292.2	178.6	211.5	88.1	.0	.0	.0	112.9	1,156.3
Black cherry	89.4	387.3	333.6	267.8	228.4	144.6	39.1	34.2	.0	.0	1,524.5
White oaks	410.4	880.9	941.6	1,318.7	1,320.9	1,034.6	1,030.0	938.0	609.0	1,647.9	10,131.9
Northern red oak	211.4	808.6	1,981.4	2,784.0	3,441.4	3,881.6	3,157.6	2,335.2	1,290.8	3,418.7	23,310.7
Other red oaks	722.6	738.8	1,728.9	2,306.5	2,352.3	2,453.1	1,886.6	989.9	592.7	1,674.1	15,445.4
Elm	76.1	137.2	138.9	35.4	110.8	32.4	50.9	.0	.0	.0	581.8
Other comm. hrdwds.	402.2	527.0	594.5	690.8	742.4	298.5	455.7	332.8	186.2	353.5	4,583.7
Noncomm. hardwoods	811.5	529.3	275.2	156.8	145.8	22.3	44.6	.0	.0	.0	1,985.5
Total hardwoods	13,620.1	13,278.1	19,064.2	19,142.9	18,365.6	15,599.6	12,231.6	8,434.5	4,851.6	12,909.8	137,498.0
Total, all species	14,765.3	15,079.2	21,540.3	21,634.1	21,669.4	18,146.9	13,647.3	10,777.2	5,776.6	16,642.5	159,678.7

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Table 29.--Net green weight[a] of all trees on timberland by class of timber and species group, Connecticut, 1985

(In thousands of tons)

Class of timber	Species group		
	Softwoods	Hardwoods	All groups
Sawtimber trees:			
Sawlog portion	11,020.4	40,950.0	51,970.4
Upper stem	1,241.6	9,539.0	10,780.6
Total	12,262.0	50,488.9	62,751.0
Poletimber trees	2,651.1	32,657.1	35,308.2
All growing stock	14,913.1	83,146.0	98,059.1
Rough cull trees[b]	598.1	4,493.1	5,091.2
Rotten cull trees[b]	105.6	1,966.8	2,072.4
Salvable dead trees[c]	735.6	3,779.9	4,515.5
Saplings[d]	1,145.1	13,620.1	14,765.3
Stumps[e]	252.0	2,133.8	2,385.8
Tops - growing stock	4,942.6	29,843.0	34,785.6
Tops - rough and rotten	236.9	2,374.2	2,611.1
All nongrowing stock	8,015.9	58,210.9	66,226.9
All classes	22,929.1	141,356.9	164,286.0

[a]Includes bark and sound cull; excludes rotten cull.
[b]Bole portion of trees 5.0 inches d.b.h. and larger.
[c]Volume of bole portion of trees 5.0 inches d.b.h. and larger, and weight of entire tree aboveground.
[d]Includes entire tree aboveground.
[e]Of all salvable dead and all live trees 5.0 inches d.b.h. and larger.

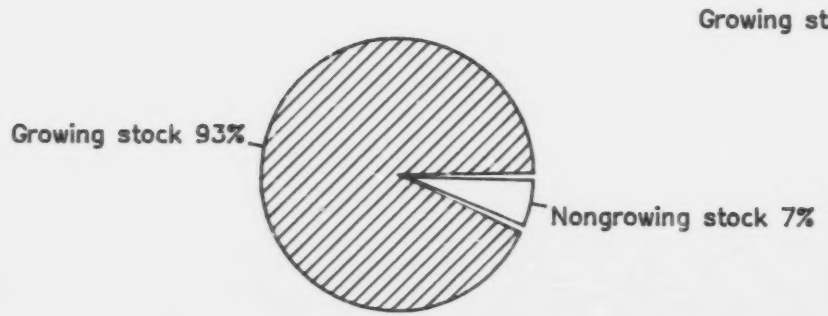
Table 30.--Net volume of all trees on timberland by class of timber and species group, Connecticut, 1985

(In millions of cubic feet)

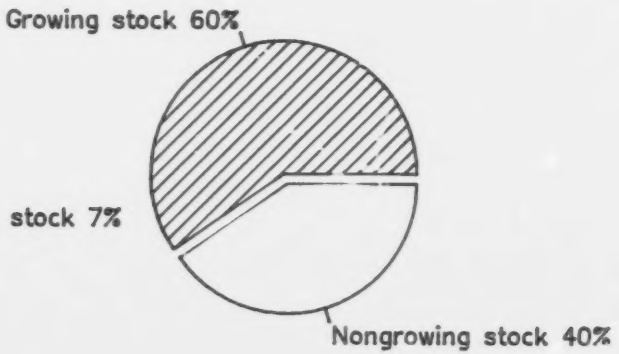
Class of timber	Softwoods	Hardwoods	All groups
Sawtimber trees:			
Sawlog portion	303.7	1,167.8	1,471.6
Upper stem portion	35.1	276.3	311.5
Total	338.8	1,444.2	1,783.0
Poletimber trees	90.4	904.2	994.6
Total growing stock	429.2	2,348.4	2,777.6
Rough trees:			
Sawtimber size	7.1	39.4	46.5
Poletimber size	3.2	46.8	50.0
Total	10.3	86.1	96.4
Rotten trees:			
Sawtimber size	.4	17.0	17.4
Poletimber size	1.5	6.6	8.1
Total	1.9	23.6	25.5
Total, all live trees	441.4	2,458.1	2,899.6
Salvable[a] dead trees:			
Sawtimber size	4.2	26.3	30.5
Poletimber size	6.9	38.2	45.1
Total	11.1	64.5	75.6
Total, all classes	452.5	2,522.6	2,975.1

[a]Includes noncommercial species.

Proportion of growing stock versus nongrowing stock, Connecticut, 1985



Net cubic-foot volume



Net green weight

Table 31.--Net volume of all live, growing-stock, and sawtimber trees on timberland by species group and ownership class, Connecticut, 1985

Species group	Ownership class				
	National Forest	Other public	Forest industry	Other private	All classes
			All live		
			(In millions of cubic feet)		
Softwoods	.0	61.6	.8	379.0	441.4
Hardwoods	.0	319.3	4.7	2,134.2	2,458.1
Total, all groups	.0	380.8	5.6	2,513.2	2,899.6
			Growing stock		
			(In millions of cubic feet)		
Softwoods	.0	61.4	.8	367.0	429.2
Hardwoods	.0	303.1	4.5	2,040.8	2,348.4
Total, all groups	.0	364.5	5.3	2,407.8	2,777.6
			Sawtimber		
			(In millions of board feet)[a]		
Softwoods	.0	233.9	2.9	1,265.6	1,502.4
Hardwoods	.0	868.0	12.0	5,400.8	6,280.9
Total, all groups	.0	1,102.0	14.9	6,666.4	7,783.3

[a]International 1/4-inch rule.

Table 32.--Net volume of growing-stock trees on timberland by forest-type group and stand-size class, Connecticut, 1985

(In millions of cubic feet)

Forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
White/red pine	394.7	19.0	.0	.0	413.7
Spruce/fir	.0	2.5	1.4	.0	3.9
Hard pine	.0	6.8	.5	.0	7.3
Oak/pine	25.4	23.4	1.5	.0	50.3
Oak/hickory	1,179.4	316.4	33.1	.0	1,528.9
Elm/ash/red maple	49.5	55.0	7.7	.0	112.2
Northern hardwoods	509.5	135.5	16.2	.0	661.2
Total, all groups	2,158.6	558.6	60.4	.0	2,777.6

Table 33.--Net volume of growing-stock trees on timberland by forest-type group and basal-area class (all live trees), Connecticut, 1985

(In millions of cubic feet)

Forest-type group	Basal-area class (square feet per acre)						All classes
	0-49	50-99	100-149	150-199	200-249	250+	
White/red pine	.3	14.6	235.8	108.2	54.8	.0	413.7
Spruce/fir	2.5	1.4	.0	.0	.0	.0	3.9
Hard pine	3.9	.0	3.4	.0	.0	.0	7.3
Oak/pine	3.5	30.2	16.6	.0	.0	.0	50.3
Oak/hickory	20.4	648.7	777.1	82.7	.0	.0	1,528.9
Elm/ash/red maple	10.8	77.3	10.2	14.0	.0	.0	112.2
Northern hardwoods	8.0	238.4	333.5	57.2	24.0	.0	661.2
Total, all groups	49.3	1,010.6	1,376.7	262.2	78.8	.0	2,777.6

Table 34.--Net volume of growing-stock trees on timberland by species and forest-type group, Connecticut, 1985

(In millions of cubic feet)

Species	Forest-type group							All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	
Spruce/fir	.0	2.2	.0	.0	.0	.0	.0	2.2
Red pine	19.9	.0	.0	.0	.5	.0	.0	20.4
Pitch pine	4.2	.0	.0	.0	1.0	.0	.2	5.4
White pine	106.4	.0	1.9	15.6	17.8	.0	13.3	155.0
Hemlock	151.7	.0	.0	.0	39.8	.0	38.7	230.2
Other softwoods	4.1	.7	4.5	2.5	2.6	.2	1.2	15.9
Total softwoods	286.2	2.9	6.4	18.1	61.8	.2	53.5	429.2
Red maple	29.7	.0	.6	4.6	235.8	97.4	230.0	598.0
Sugar maple	4.7	.0	.0	.6	41.3	.0	68.1	114.7
Yellow birch	2.8	.0	.0	.0	14.7	1.9	16.8	36.1
Sweet birch	16.0	.1	.0	.7	104.2	.0	56.3	177.3
Paper birch	2.4	.0	.0	.0	7.3	.0	4.2	13.9
Hickory	1.7	.0	.0	.6	105.3	.1	22.1	129.8
Beech	4.2	.0	.0	.0	23.3	.0	25.2	52.7
White ash	7.4	.0	.0	.0	46.3	4.4	82.8	140.9
Aspen	1.1	.0	.0	.0	7.8	1.1	5.4	15.4
Black cherry	1.6	.0	.0	1.3	4.4	2.0	18.8	28.1
White oak	12.6	.0	.0	4.3	151.9	.8	9.4	179.0
Northern red oak	17.8	.0	.1	2.8	393.9	.3	32.7	447.6
Other red oaks	14.7	.8	.1	17.3	238.6	.0	13.0	284.5
Elm	.0	.0	.0	.0	1.5	3.0	4.3	8.8
Other hardwoods	10.8	.0	.1	.0	90.8	1.1	18.6	121.4
Total hardwoods	127.5	.9	.9	32.2	1,467.1	112.0	607.8	2,348.4
Total all species	413.7	3.9	7.3	50.3	1,528.9	112.2	661.2	2,777.6

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Table 35.--Net volume of growing-stock trees on timberland by species and stand-size class, Connecticut, 1972

(In millions of cubic feet)

Species	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Spruce/fir	.0	.0	.0	.0	.0
Red pine	57.8	4.0	.8	.0	62.5
Pitch pine	.0	10.2	1.5	.0	11.7
White pine	71.1	25.9	4.9	.0	102.0
Hemlock	151.9	10.8	.7	.0	163.4
Other softwoods	.1	3.1	1.2	.0	4.4
Total softwoods	280.9	54.0	9.1	.0	344.0
Red maple	155.8	204.1	25.3	.0	385.3
Sugar maple	79.7	15.2	4.0	.0	98.9
Yellow birch	19.6	14.2	0	.0	33.8
Sweet birch	89.2	56.3	12.4	.0	157.9
Paper birch	8.1	8.2	0	.0	16.3
Hickory	47.2	53.6	8.6	.0	109.4
Beech	21.2	20.5	0	.0	41.7
White ash	73.4	49.3	3.8	.0	126.4
Aspen	8.8	4.8	1.7	.0	15.3
Black cherry	18.6	13.8	5.7	.0	38.1
White oak	87.4	75.9	13.2	.0	176.6
Northern red oak	225.9	170.0	22.8	.0	418.7
Other red oaks	151.4	90.8	11.5	.0	253.7
Elm	3.6	4.9	3.3	.0	11.9
Other hardwoods	44.1	41.7	10.5	.0	96.4
Total hardwoods	1,033.9	823.4	122.9	.0	1,980.2
Total, all species	1,314.8	877.4	132.1	.0	2,324.2

Table 36.--Net volume of growing-stock trees on timberland by species and stand-size class, Connecticut, 1985

(In millions of cubic feet)

Species	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Spruce/fir	.0	.8	1.4	.0	2.2
Red pine	19.9	.5	.0	.0	20.4
Pitch pine	4.4	1.0	.0	.0	5.4
White pine	135.9	18.5	.6	.0	155.0
Hemlock	207.7	22.6	.0	.0	230.2
Other softwoods	6.5	8.8	.6	.0	15.9
Total softwoods	374.4	52.2	2.5	.0	429.2
Red maple	454.6	130.6	12.8	.0	598.0
Sugar maple	101.3	8.9	4.5	.0	114.7
Yellow birch	27.7	7.5	.9	.0	36.1
Sweet birch	143.3	31.8	2.3	.0	177.3
Paper birch	8.7	5.2	0	.0	13.9
Hickory	99.6	28.3	1.9	.0	129.8
Beech	45.8	6.7	.2	.0	52.7
White ash	90.5	43.8	6.6	.0	140.9
Aspen	7.6	7.3	.6	.0	15.4
Black cherry	14.0	10.2	4.0	.0	28.1
White oak	145.3	29.7	4.0	.0	179.0
Northern red oak	354.7	84.8	8.1	.0	447.6
Other red oaks	204.6	75.5	4.4	.0	284.5
Elm	4.5	3.6	.7	.0	8.8
Other hardwoods	82.2	32.4	6.7	.0	121.4
Total hardwoods	1,784.2	506.4	57.8	.0	2,348.4
Total, all species	2,158.6	558.6	60.4	.0	2,777.6

Table 37.--Net volume of growing-stock trees on timberland by species and cubic-foot stand-volume class, Connecticut, 1985

(In millions of cubic feet)

Species	Stand-volume class (cubic feet per acre)						All classes
	0-499	500-999	1000-1499	1500-1999	2000-2499	2500+	
Spruce/fir	2.2	.0	.0	.0	.0	.0	2.2
Red pine	.0	.0	.0	1.3	19.1	.0	20.4
Pitch pine	.0	1.0	.0	.0	3.5	.9	5.4
White pine	1.5	6.6	13.5	18.0	57.5	57.9	155.0
Hemlock	.0	1.9	6.2	19.4	32.2	170.6	230.2
Other softwoods	1.6	5.3	7.6	.3	.8	.2	15.9
Total softwoods	5.4	14.8	27.3	39.0	113.3	229.5	429.2
Red maple	6.8	33.7	109.1	141.0	125.6	181.8	598.0
Sugar maple	.5	1.2	24.7	45.0	26.3	17.0	114.7
Yellow birch	.4	3.8	4.5	15.2	6.7	5.5	36.1
Sweet birch	1.2	3.1	37.9	40.2	47.1	47.9	177.3
Paper birch	.0	.3	.7	8.0	2.6	2.4	13.9
Hickory	2.1	5.2	24.2	45.0	34.6	18.6	129.8
Beech	.0	1.0	5.4	12.6	22.9	10.8	52.7
White ash	2.7	7.2	26.9	36.0	51.3	16.8	140.9
Aspen	.3	2.2	8.7	3.5	.7	.0	15.4
Black cherry	4.8	1.1	7.6	7.0	2.4	5.2	28.1
White oak	3.5	15.3	46.9	60.9	40.6	11.7	179.0
Northern red oak	3.9	34.0	80.4	162.7	91.1	75.5	447.6
Other red oaks	3.9	23.3	76.6	81.1	60.6	39.1	284.5
Elm	.4	.4	3.2	1.6	2.8	.4	8.8
Other hardwoods	1.4	17.8	28.2	35.5	16.1	22.4	121.4
Total hardwoods	32.0	149.4	485.2	695.2	531.5	455.2	2,348.4
Total, all species	37.4	164.2	512.4	734.2	644.7	684.7	2,777.6

Net volume of growing-stock trees by diameter class, Connecticut, 1972 and 1985

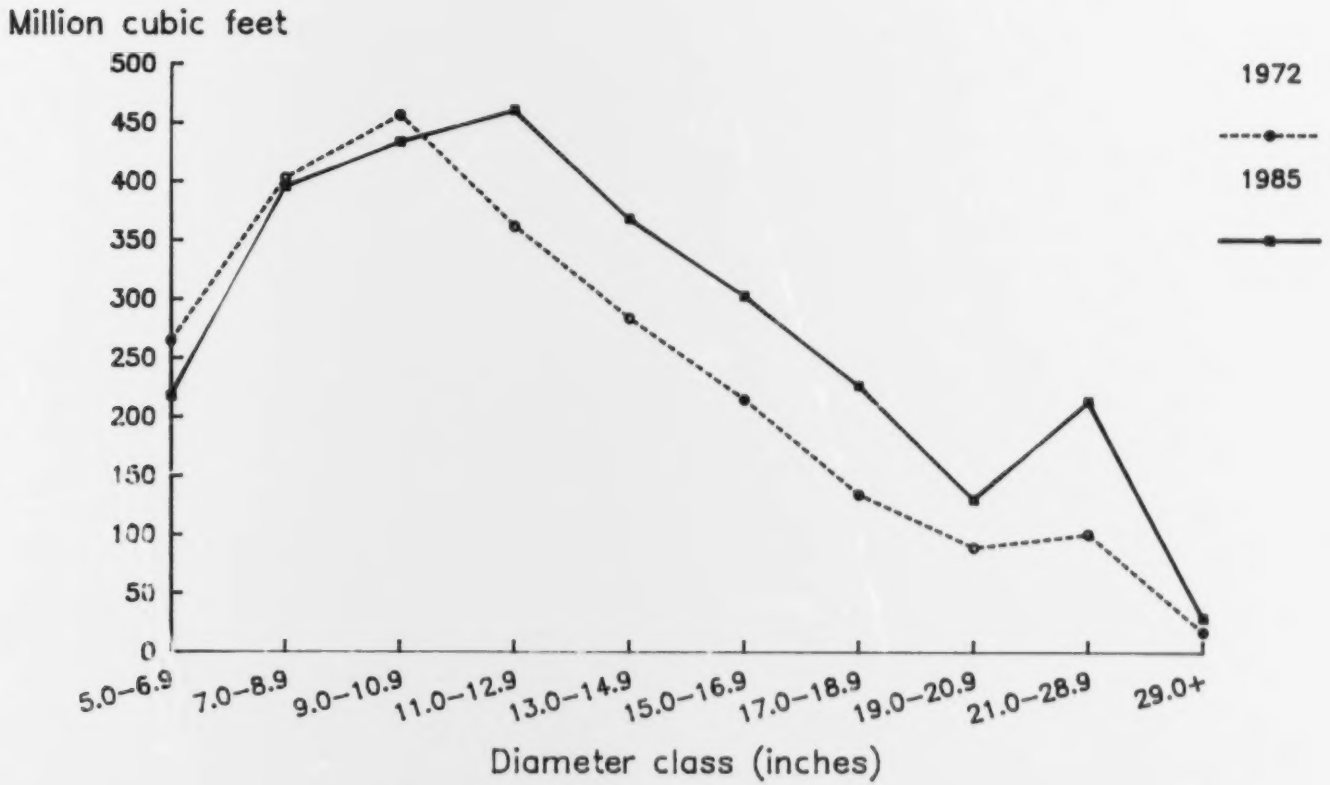

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Table 38.--Net volume of growing-stock trees on timberland by species and diameter class, Connecticut, 1972

(In millions of cubic feet)

Species	Diameter class (inches at breast height)										All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29+	
Spruce/fir	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red pine	2.6	12.3	19.7	12.3	10.5	5.1	.0	.0	.0	.0	62.5
Pitch pine	3.5	3.7	1.8	.9	1.9	.0	.0	.0	.0	.0	11.7
White pine	7.5	12.2	14.2	7.6	15.0	8.8	13.1	10.7	9.0	3.9	102.0
Hemlock	14.1	15.4	23.6	29.9	17.0	26.1	10.4	7.4	16.1	3.5	163.4
Other softwoods	2.7	.2	.2	.0	1.3	.0	.0	.0	.0	.0	4.4
Total softwoods	30.4	43.7	59.5	50.7	45.8	40.0	23.4	18.1	25.1	7.4	344.0
Red maple	83.6	95.9	84.0	46.6	28.6	24.8	6.3	5.1	6.2	4.1	385.3
Sugar maple	5.6	23.9	23.7	14.7	8.7	7.1	6.2	1.1	6.6	1.4	98.9
Yellow birch	12.4	6.7	2.2	3.4	5.6	.1	2.3	.0	1.1	.0	33.8
Sweet birch	27.4	41.5	35.7	25.8	12.0	7.8	2.2	4.3	1.3	.0	157.9
Paper birch	4.1	4.6	3.7	2.0	1.7	.1	.1	.0	.0	.0	16.3
Hickory	13.7	31.2	18.2	20.7	5.0	5.9	1.6	6.4	6.5	.0	109.4
Beech	3.4	5.5	12.4	6.0	7.6	3.7	1.8	.0	1.3	.0	41.7
White ash	9.1	23.0	31.7	23.0	17.9	10.8	4.3	1.6	5.0	.0	126.4
Aspen	1.3	6.6	6.1	1.2	.1	.0	.0	.0	.0	.0	15.3
Black cherry	4.1	8.2	11.2	8.5	.9	2.8	2.3	.0	.0	.0	38.1
White oak	19.3	29.0	38.6	27.2	29.1	7.5	14.8	6.8	4.3	.0	176.6
Northern red oak	20.9	40.8	74.3	64.8	61.9	59.3	38.9	28.3	26.1	3.4	418.7
Other red oaks	10.9	26.0	39.1	53.8	44.0	35.8	21.9	14.3	7.9	0	253.7
Elm	2.8	1.7	4.6	2.0	.0	.7	.0	.0	.0	.0	11.9
Other hardwoods	15.4	14.8	11.1	11.4	14.8	8.3	7.9	2.8	8.7	1.2	96.4
Total hardwoods	233.9	359.4	396.7	311.1	237.9	174.8	110.5	70.8	75.1	10.0	1,980.2
Total, all species	264.3	403.1	456.2	361.7	283.7	214.8	134.0	88.9	100.2	17.4	2,324.2

Table 39.--Net volume of growing-stock trees on timberland by species and diameter class, Connecticut, 1985

(In millions of cubic feet)

Species	Diameter class (inches at breast height)										All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29+	
Spruce/fir	1.4	.0	.0	.0	.0	.8	.0	.0	.0	.0	2.2
Red pine	.0	.5	5.3	8.3	4.7	.8	.8	.0	.0	.0	20.4
Pitch pine	1.5	1.2	1.5	1.3	.0	.0	.0	.0	.0	.0	5.4
White pine	8.5	17.9	14.4	23.7	17.5	11.9	17.4	7.4	30.0	6.4	155.0
Hemlock	19.0	29.6	28.4	37.2	26.8	18.8	24.0	14.6	26.0	5.8	230.2
Other softwoods	5.1	5.7	3.1	1.6	.3	.0	.0	.0	.0	.0	15.9
Total softwoods	35.5	54.9	52.7	72.2	49.3	32.3	42.1	22.0	56.1	12.2	429.2
Red maple	58.0	106.1	103.7	97.9	67.3	58.7	45.8	21.3	34.2	5.0	598.0
Sugar maple	8.9	16.7	17.8	18.6	14.3	10.4	6.5	9.3	12.2	.0	114.7
Yellow birch	4.0	7.8	9.9	5.1	4.7	2.0	1.4	.0	1.4	.0	36.1
Sweet birch	24.1	43.2	35.0	30.8	20.4	15.0	7.2	.9	.9	.0	177.3
Paper birch	3.2	5.4	1.4	1.9	1.3	.7	.0	.0	.0	.0	13.9
Hickory	11.0	21.6	27.9	25.8	24.1	6.1	8.1	4.6	.0	.6	129.8
Beech	4.0	7.1	7.4	7.6	6.4	4.7	7.1	2.7	5.8	.0	52.7
White ash	13.0	25.7	24.7	20.2	18.0	20.0	7.4	5.4	5.8	.6	140.9
Aspen	2.3	3.0	3.4	4.2	1.8	.0	.0	.0	.4	.4	15.4
Black cherry	5.7	6.1	6.6	4.8	3.1	1.9	.0	.0	.0	.0	28.1
White oak	12.1	18.0	26.9	31.7	23.8	23.0	15.4	10.0	16.3	1.9	179.0
Northern red oak	13.5	36.2	52.2	79.3	78.6	69.9	47.8	25.8	37.5	6.8	447.6
Other red oaks	13.0	31.1	45.2	45.0	44.2	36.2	22.9	14.7	31.8	.4	284.5
Elm	1.9	2.1	2.2	1.6	.4	.6	.0	.0	.0	.0	8.8
Other hardwoods	7.6	10.9	16.7	14.1	10.3	21.2	15.0	13.1	10.8	1.5	121.4
Total hardwoods	182.2	340.9	381.1	388.3	318.7	270.4	184.5	107.9	157.1	17.3	2,348.4
Total, all species	217.7	395.8	433.7	460.5	368.0	302.7	226.6	129.9	213.2	29.4	2,777.6

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Net volume of growing-stock trees by species, Connecticut, 1985

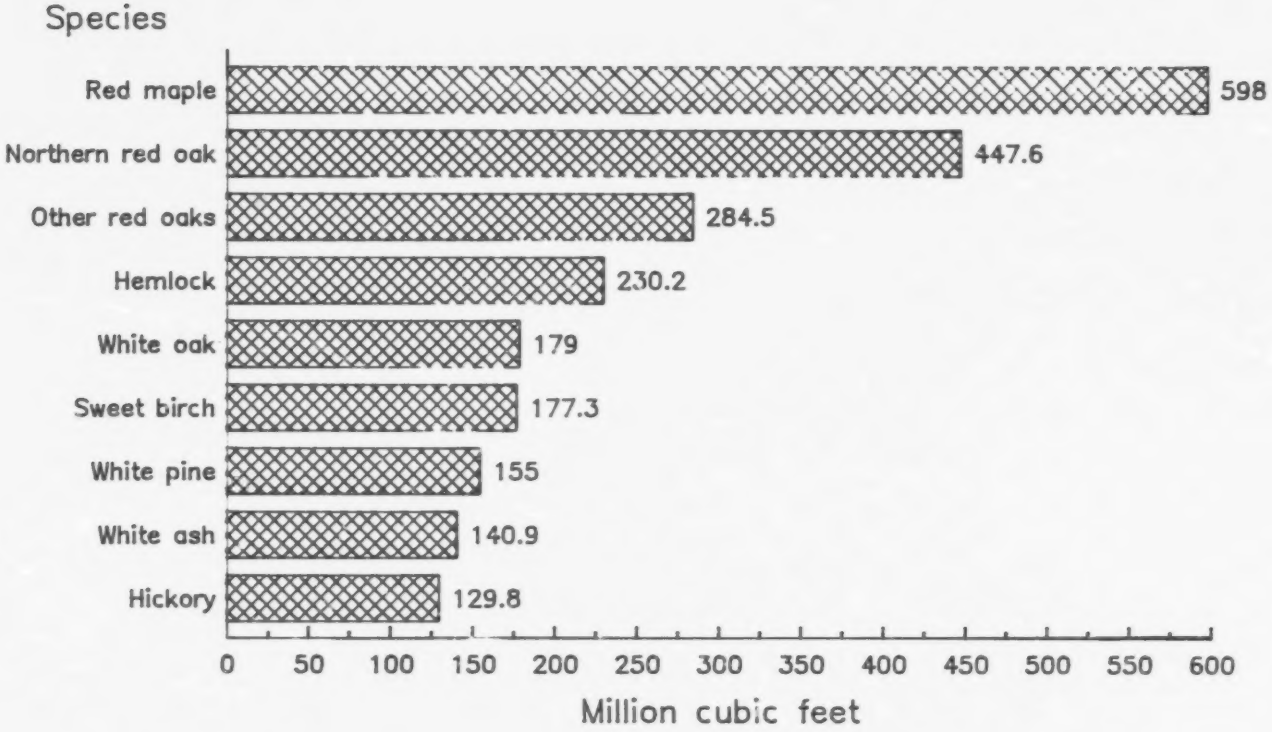

Table 40.--Net volume of growing stock in the sawlog portion[a] of sawtimber trees on timberland by species and diameter class, Connecticut, 1985

(In millions of cubic feet)

Species	Diameter class (inches at breast height)								All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29+	
Spruce/fir	.0	.0	.0	.8	.0	.0	.0	.0	.8
Red pine	4.4	7.3	4.2	.7	.7	.0	.0	.0	17.4
Pitch pine	1.3	1.2	.0	.0	.0	.0	.0	.0	2.4
White pine	12.1	20.6	15.6	10.8	16.0	6.9	28.1	6.0	116.1
Hemlock	23.9	32.4	23.9	17.1	22.1	13.6	24.4	5.4	162.8
Other softwoods	2.6	1.4	.3	.0	.0	.0	.0	.0	4.3
Total softwoods	44.3	62.8	44.1	29.4	38.8	20.5	52.4	11.4	303.7
Red maple	-	72.1	54.5	49.3	38.9	18.1	29.1	4.3	266.2
Sugar maple	-	13.7	11.6	8.7	5.5	7.9	10.4	.0	57.8
Yellow birch	-	3.7	3.8	1.6	1.2	.0	1.2	.0	11.5
Sweet birch	-	22.6	16.5	12.6	6.1	.8	.8	.0	59.4
Paper birch	-	1.4	1.1	.6	.0	.0	.0	.0	3.0
Hickory	-	19.0	19.5	5.1	6.9	3.9	.0	.5	55.0
Beech	-	5.6	5.2	3.9	6.1	2.3	4.9	.0	27.9
White ash	-	14.9	14.6	16.8	6.3	4.6	4.9	.5	62.5
Aspen	-	3.1	1.4	.0	.0	.0	.3	.4	5.2
Black cherry	-	3.5	2.5	1.6	.0	.0	.0	.0	7.6
White oak	-	23.3	19.3	19.3	13.1	8.5	13.9	1.6	99.0
Northern red oak	-	58.3	63.7	58.8	40.6	22.0	31.9	5.8	281.0
Other red oaks	-	33.1	35.8	30.4	19.5	12.5	27.0	.3	158.7
Elm	-	1.1	.3	.5	.0	.0	.0	.0	2.0
Other hardwoods	-	10.4	8.4	17.8	12.8	11.2	9.2	1.3	70.9
Total hardwoods	-	285.8	258.1	227.1	156.9	91.7	133.6	14.7	1,167.8
Total, all species	44.3	348.6	302.2	256.6	195.7	112.2	186.0	26.1	1,471.6

[a]That part of the bole of sawtimber trees between the 1-foot stump and the sawlog top, including the portion of the forks large enough to contain a sawlog.

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Table 41.--Net volume of sawtimber trees on timberland by species and diameter class, Connecticut, 1972

(In millions of board feet)[a]

Species	Diameter class (inches at breast height)								All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29+	
Spruce/fir	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red pine	79.7	54.5	47.1	25.6	.0	.0	.0	.0	206.9
Pitch pine	5.4	3.2	8.1	.0	.0	.0	.0	.0	16.6
White pine	45.2	30.6	69.8	40.9	63.4	53.8	46.8	18.3	368.7
Hemlock	80.8	118.2	71.0	118.8	48.2	34.2	81.8	18.8	571.8
Other softwoods	.5	.2	5.4	.0	.0	.0	.0	.0	6.0
Total softwoods	211.5	206.6	201.4	185.3	111.7	87.9	128.6	37.1	1,170.1
Red maple	-	175.3	120.6	109.2	29.6	24.4	28.0	21.6	508.8
Sugar maple	-	59.0	35.0	29.5	24.7	4.5	35.0	6.7	194.3
Yellow birch	-	15.2	23.6	.4	9.7	.0	4.2	.0	53.2
Sweet birch	-	100.0	49.2	35.0	8.9	22.1	6.4	.0	221.5
Paper birch	-	8.4	7.5	.5	.5	.0	.0	.0	16.9
Hickory	-	82.6	19.8	26.4	7.5	30.6	32.3	.0	199.1
Beech	-	28.9	36.3	18.1	8.8	.0	5.5	.0	97.6
White ash	-	96.3	72.9	43.1	18.6	6.9	23.1	.0	260.9
Aspen	-	3.6	.7	.0	.0	.0	.0	.0	4.2
Black cherry	-	36.2	3.7	13.4	9.7	.0	.0	.0	63.0
White oak	-	105.5	120.9	35.1	69.8	30.0	18.2	.0	379.6
Northern red oak	-	247.5	266.3	262.9	183.0	129.6	129.0	18.4	1,236.6
Other red oaks	-	200.8	183.0	154.6	98.9	67.6	39.3	.0	744.3
Elm	-	7.2	.0	2.6	.0	.0	.0	.0	9.8
Other hardwoods	-	46.2	62.0	36.6	39.1	14.1	45.9	7.1	250.9
Total hardwoods	-	1,212.7	1,001.6	767.3	508.9	329.7	366.9	53.8	4,240.8
Total, all species	211.5	1,419.3	1,202.9	952.6	620.6	417.6	495.5	90.8	5,411.0

[a]International 1/4-inch rule.

Table 42.--Net volume of sawtimber trees on timberland by species and diameter class, Connecticut, 1985

(In millions of board feet)[a]

Species	Diameter class (inches at breast height)								All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29+	
Spruce/fir	.0	.0	.0	3.9	.0	.0	.0	.0	3.9
Red pine	18.2	35.1	20.7	4.0	3.0	.0	.0	.0	81.0
Pitch pine	4.1	5.0	.0	.0	.0	.0	.0	.0	9.1
White pine	47.9	94.2	75.2	57.9	86.5	38.5	158.5	35.9	594.6
Hemlock	98.2	148.3	112.5	87.7	113.5	70.8	135.8	31.8	798.8
Other softwoods	8.7	5.2	1.2	.0	.0	.0	.0	.0	15.0
Total softwoods	177.2	287.8	209.5	153.5	203.0	109.4	294.3	67.7	1,502.4
Red maple	-	368.6	277.3	256.8	213.4	99.4	168.4	29.1	1,413.0
Sugar maple	-	67.4	63.8	45.3	28.4	40.3	66.1	.0	311.3
Yellow birch	-	20.0	20.9	9.6	6.0	.0	8.1	.0	64.7
Sweet birch	-	125.4	87.4	69.3	33.3	4.4	4.1	.0	323.8
Paper birch	-	7.4	6.2	3.0	.0	.0	.0	.0	16.6
Hickory	-	103.0	108.3	29.5	40.8	24.7	.0	4.4	310.6
Beech	-	28.7	26.9	21.1	34.3	13.1	31.6	.0	155.7
White ash	-	79.6	77.3	78.1	31.9	23.1	25.4	4.1	319.5
Aspen	-	17.2	9.3	.0	.0	.0	2.3	2.9	31.8
Black cherry	-	18.3	14.0	9.5	.0	.0	.0	.0	41.8
White oak	-	123.6	104.4	101.4	74.5	52.0	81.4	5.1	542.3
Northern red oak	-	293.5	323.5	308.6	217.1	117.1	194.7	35.7	1,490.1
Other red oaks	-	162.0	181.3	161.8	106.8	71.5	159.0	2.6	845.1
Elm	-	6.0	1.1	3.3	.0	.0	.0	.0	10.3
Other hardwoods	-	52.9	44.5	97.6	75.0	67.6	57.1	9.6	404.4
Total hardwoods	-	1,473.6	1,346.2	1,194.6	861.5	513.1	798.4	93.4	6,280.9
Total, all species	177.2	1,761.4	1,555.7	1,348.1	1,064.6	622.5	1,092.6	161.2	7,783.3

[a]International 1/4-inch rule.

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Table 43.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Connecticut, 1972

(In millions of board feet)[a]

Species	All size classes					>15" Diameter at breast height				
	Grade 1	Grade 2	Grade 3	Grade 4[b]	All grades	Grade 1	Grade 2	Grade 3	Grade 4[b]	All grades
Spruce/fir[c]	.0	-	-	-	.0	.0	-	-	-	.0
Red pine	108.3	14.3	84.3	-	206.9	13.6	1.8	10.2	-	25.6
Pitch pine	.0	5.5	11.1	-	16.6	.0	.0	.0	-	.0
White pine	32.6	49.0	190.5	96.6	368.7	22.3	34.2	105.7	61.0	223.2
Hemlock[c]	571.8	-	-	-	571.8	301.8	-	-	-	301.8
Other softwoods	6.0	.0	.0	-	6.0	.0	.0	.0	-	.0
Total softwoods	718.8	68.8	285.8	96.6	1,170.1	337.7	36.0	116.0	61.0	550.7
Red maple	25.0	96.0	309.2	78.6	508.8	24.9	44.8	110.3	32.9	212.9
Sugar maple	19.1	43.2	94.8	37.3	194.3	14.7	28.1	36.2	21.3	100.3
Yellow birch	.8	7.2	37.2	8.0	53.2	.3	.4	12.4	1.2	14.3
Sweet birch	17.5	37.7	153.0	13.3	221.5	12.7	11.9	44.2	3.6	72.4
Paper birch	.3	1.4	13.3	2.0	16.9	.0	.7	.2	.0	.9
Hickory	29.4	36.5	84.2	49.0	199.1	24.5	21.7	27.2	23.4	96.8
Beech	1.5	11.0	74.0	11.1	97.6	.3	.4	27.5	4.2	32.4
White ash	54.3	70.7	103.3	32.7	260.9	25.5	27.3	28.0	10.9	91.7
Aspen	.0	.4	3.2	.6	4.2	.0	.0	.0	.0	.0
Black cherry	.0	10.3	43.3	9.4	63.0	.0	7.1	12.8	3.2	23.1
White oak	28.1	89.0	180.0	82.5	379.6	24.2	49.6	48.5	30.8	153.1
Northern red oak	245.0	343.7	549.1	98.9	1,236.6	202.9	216.4	252.9	50.5	722.7
Other red oaks	79.7	156.1	336.8	171.7	744.3	65.9	102.3	130.9	61.3	360.4
Elm	.0	.0	8.2	1.6	9.8	.0	.0	2.2	.4	2.6
Other hardwoods	42.8	81.4	81.1	45.6	250.9	34.5	49.1	44.6	14.6	142.8
Total hardwoods	543.3	984.6	2,070.5	642.3	4,240.8	430.3	560.0	777.8	258.5	2,026.6
Percent of hardwood in each grade	13	23	49	15	100	21	28	38	13	100

[a]International 1/4-inch rule.
[b]Grade 4 applies only to white pine. For hardwoods, the volumes in this column are for construction logs.
[c]These species are not divided into standard-lumber grades.

Table 44.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Connecticut, 1985

(In millions of board feet)[a]

Species	All size classes					>15" Diameter at breast height				
	Grade 1	Grade 2	Grade 3	Grade 4[b]	All grades	Grade 1	Grade 2	Grade 3	Grade 4[b]	All grades
Spruce/fir[c]	3.9	-	-	-	3.9	3.9	-	-	-	3.9
Red pine	.0	.0	81.0	-	81.0	.0	.0	9.7	-	9.7
Pitch pine	.0	.0	9.1	-	9.1	.0	.0	.0	-	.0
White pine	.6	95.7	282.4	215.9	594.6	.0	49.4	135.0	132.0	316.4
Hemlock[c]	798.8	-	-	-	798.8	4.8	-	-	-	4.8
Other softwoods	12.0	.0	3.0	-	15.0	.0	.0	.0	-	.0
Total softwoods	815.3	95.7	375.5	215.9	1,502.4	8.7	49.4	144.7	132.0	334.8
Red maple	41.0	160.6	885.9	316.5	1,413.0	41.0	111.6	445.1	155.4	753.1
Sugar maple	45.1	55.4	148.5	62.3	311.3	42.0	36.1	80.3	43.9	202.3
Yellow birch	.7	3.0	50.3	10.7	64.7	.1	.1	16.4	.3	16.9
Sweet birch	15.2	32.0	179.1	97.5	323.8	12.6	5.5	42.4	38.5	99.0
Paper birch	.0	.0	10.6	6.0	16.6	.0	.0	3.6	.5	4.1
Hickory	4.7	45.3	187.8	72.7	310.6	2.2	4.3	67.7	3.4	77.6
Beech	1.6	6.2	119.1	28.8	155.7	1.1	3.3	89.1	4.5	98.0
White ash	.0	101.0	161.0	57.5	319.5	.0	70.9	51.1	12.8	134.8
Aspen	.0	2.8	14.9	14.1	31.8	.0	.0	3.3	3.7	7.0
Black cherry	.0	6.3	20.8	14.7	41.8	.0	.0	.0	1.1	1.1
White oak	73.2	99.8	227.2	142.1	542.3	60.7	74.8	127.4	93.3	356.2
Northern red oak	208.6	447.0	652.7	181.8	1,490.1	195.2	298.0	284.6	98.3	876.1
Other red oaks	82.0	191.8	371.0	200.3	845.1	79.4	145.4	4.0	72.7	301.5
Elm	.0	4.5	4.8	1.0	10.3	.0	2.6	1.0	.2	3.8
Other hardwoods	103.5	57.4	175.9	67.6	404.4	96.2	51.0	110.4	33.2	290.8
Total hardwoods	575.6	1,222.1	3,209.6	1,273.6	6,280.9	530.5	803.6	1,326.4	561.8	3,222.3
Percent of hardwood in each grade	9	20	51	20	100	17	25	41	17	100

[a]International 1/4-inch rule.
[b]Grade 4 applies only to white pine. For hardwoods, the volumes in this column are for construction logs.
[c]These species are not divided into standard-lumber grades.

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Table 45.--Average annual net change of growing-stock volume on timberland by species and component, Connecticut, 1971-84

(In thousands of cubic feet)

Species	Ingrowth	Accretion	Gross growth	Mortality	Cull increment	Net growth	Removals	Net change
Spruce/fir	0	171	171	0	0	171	0	171
White pine	1,116	3,157	4,273	-105	0	4,168	-55	4,113
Hemlock	1,959	4,131	6,090	-67	-67	5,956	-777	5,179
Other softwoods	435	1,696	2,131	-53	0	2,078	-4,936	-2,858
Total softwoods	3,510	9,155	12,665	-225	-67	12,373	-5,768	6,605
Red maple	4,883	18,615	23,498	-2,170	-1,002	20,326	-3,828	16,498
Sugar maple	273	2,746	3,019	-1,000	-479	1,540	-317	1,223
Yellow birch	192	527	719	-323	-167	229	-46	183
Sweet birch	955	2,444	3,399	-982	-91	2,326	-820	1,506
Hickory	503	2,417	2,920	-660	-232	2,028	-445	1,583
Beech	602	1,876	2,478	0	-102	2,376	-1,521	855
White ash	1,187	1,271	2,458	-970	-130	1,358	-238	1,120
Aspen	0	87	87	-48	-28	11	0	11
White oak	268	4,385	4,653	-2,074	-253	2,326	-2,135	191
Northern red oak	800	8,786	9,586	-2,106	-57	7,423	-5,177	2,246
Other red oaks	741	6,272	7,013	-2,194	-80	4,739	-2,346	2,393
Other hardwoods	862	5,119	5,981	-3,354	-82	2,545	-1,805	740
Total hardwoods	11,266	54,545	65,811	-15,881	-2,703	47,227	-18,675	28,551
Total, all species	14,776	63,700	78,476	-16,106	-2,770	59,600	-24,444	35,156

Table 46.--Average annual net growth and average annual removals of growing-stock volume on timberland by species, Connecticut, 1971-84

(In thousands of cubic feet)

Species	Net growth	Removals
Spruce/fir	171	0
White pine	4,168	-55
Hemlock	5,956	-777
Other softwoods	2,078	-4,936
Total softwoods	12,373	-5,768
Red maple	20,326	-3,828
Sugar maple	1,540	-317
Yellow birch	229	-46
Sweet birch	2,326	-820
Hickory	2,028	-445
Beech	2,376	-1,521
White ash	1,358	-238
Aspen	11	0
White oak	2,326	-2,135
Northern red oak	7,423	-5,177
Other red oaks	4,739	-2,346
Other hardwoods	2,545	-1,805
Total hardwoods	47,227	-18,675
Total, all species	59,600	-24,444

Table 47.--Average annual net growth and average annual removals of sawtimber volume on timberland by species, Connecticut, 1971-84

(In thousands of board feet)[a]

Species	Net growth	Removals
Spruce/fir	304	0
White pine	17,661	-147
Hemlock	21,008	-3,406
Other softwoods	-4,573	-5,078
Total softwoods	34,400	-8,632
Red maple	75,838	-5,719
Sugar maple	9,067	0
Yellow birch	891	0
Sweet birch	9,282	-1,351
Hickory	9,288	-649
Beech	9,060	-4,556
White ash	4,885	-342
Aspen	2,133	0
White oak	19,312	-6,693
Northern red oak	37,563	-17,908
Other red oaks	14,263	-6,443
Other hardwoods	15,988	-5,715
Total hardwoods	207,570	-49,376
Total, all species	241,970	-58,008

[a]International 1/4-inch rule.

Table 48.--Average annual mortality of growing-stock and sawtimber volume on timberland by species, Connecticut, 1971-84

Species	Growing stock	Sawtimber
	Thousand cubic feet	Thousand board feet[a]
Spruce/fir	0	0
White pine	-105	0
Hemlock	-67	-468
Other softwoods	-53	-4,744
Total softwoods	-225	-5,212
Red maple	-2,170	-5,396
Sugar maple	-1,000	-750
Yellow birch	-323	-510
Sweet birch	-982	-1,389
Hickory	-660	-584
Beech	0	0
White ash	-970	0
Aspen	-48	0
White oak	-2,074	-4,317
Northern red oak	-2,106	-3,423
Other red oaks	-2,194	-9,365
Other hardwoods	-3,354	-5,862
Total hardwoods	-15,881	-31,596
Total, all species	-16,106	-36,808

[a]International 1/4-inch rule.

Table 49.--Average annual net growth and average annual removals of growing-stock volume on timberland by ownership class and species group, Connecticut, 1971-84

(In thousands of cubic feet)

Ownership class	Growth			Removals		
	Softwoods	Hardwoods	All groups	Softwoods	Hardwoods	All groups
Public	5,349	5,340	10,689	0	-3,397	-3,397
Private	7,024	41,887	48,911	-5,768	-15,278	-21,047
Total, all classes	12,373	47,227	59,600	-5,768	-18,675	-24,444

Table 50.--Average annual net growth and average annual removals of sawtimber volume on timberland by ownership class and species group, Connecticut, 1971-1984

(In thousands of board feet)[a]

Ownership class	Growth			Removals		
	Softwoods	Hardwoods	All groups	Softwoods	Hardwoods	All groups
Public	16,593	28,984	45,577	0	-10,130	-10,130
Private	17,807	178,586	196,393	-8,632	-39,246	-47,878
Total, all classes	34,400	207,570	241,970	-8,632	-49,376	-58,008

[a] International 1/4-inch rule.

Table 51.--Output[a] of timber products by product, softwoods and hardwoods, and source of material, Connecticut, 1984

(In standard units and thousands of cubic feet)

Product and species group	Standard Units[b]	Output from roundwood		Output from mill residues		Total output	
		Number of units	Thousand cubic feet	Number of units	Thousand cubic feet	Number of units	Thousand cubic feet
Sawlogs							
Softwood	M board feet	15,345	2,349	0	0	15,345	2,349
Hardwood	M board feet	53,914	8,535	0	0	53,914	8,535
Total	M board feet	69,259	10,884	0	0	69,259	10,884
Veneer							
Softwood	M board feet	0	0	0	0	0	0
Hardwood	M board feet	676	107	0	0	676	107
Total	M board feet	676	107	0	0	676	107
Pulpwood[c]							
Softwood	Standard cords	3,020	257	764	65	3,784	322
Hardwood	Standard cords	0	0	1,915	163	1,915	163
Total	Standard cords	3,020	257	2,679	228	5,699	485
Other products[d]							
Softwood	M board feet	1,644	263	0	0	1,644	263
Hardwood	M board feet	394	63	0	0	394	63
Total	M board feet	2,038	326	0	0	2,038	326
ALL INDUSTRIAL							
Softwood			2,869		65		2,934
Hardwood			8,705		163		8,868
Total			11,574		228		11,802
Fuelwood[e]							
Softwood	Standard cords	361	29	5,938	475	6,299	504
Hardwood	Standard cords	209,894	16,792	22,413	1,793	232,307	18,585
Total	Standard cords	210,255	16,821	28,351	2,268	238,606	19,089
ALL PRODUCTS[f]							
Softwood			2,898		540		3,438
Hardwood			25,497		1,956		27,453
Total			28,395		2,496		30,891

[a] The volume of wood received at manufacturing plants that used roundwood products.
[b] Board feet is expressed on the International 1/4-inch rule basis and standard cords is expressed on a rough wood basis (includes both roundwood and chips).
[c] A standard cord of pulpwood is equivalent to 85 cubic feet of solid wood.
[d] Includes poles and cabin logs.
[e] A standard cord of fuelwood is equivalent to 80 cubic feet of solid wood.
[f] Does not include 605,000 cubic feet of softwood and 1,785,000 cubic feet of hardwood residues used for agricultural bedding.

Table 52.--Output of roundwood products by product, softwoods and hardwoods, and source of material[a], Connecticut, 1984

(In thousands of cubic feet)

Product and species group	Growing-stock trees			Rough and rotten	Salvable dead trees	Other sources	All sources
	Poletimber	Sawtimber	Total				
Sawlogs							
Softwood	2	1,860	1,862	265	14	208	2,349
Hardwood	19	7,093	7,112	670	84	669	8,535
Total	21	8,953	8,974	935	98	877	10,884
Veneer							
Softwood	0	0	0	0	0	0	0
Hardwood	0	98	98	0	0	9	107
Total	0	98	98	0	0	9	107
Pulpwood							
Softwood	4	246	250	0	6	1	257
Hardwood	0	0	0	0	0	0	0
Total	4	246	250	0	6	1	257
Other products							
Softwood	0	213	213	0	0	50	263
Hardwood	0	59	59	3	0	1	63
Total	0	272	272	3	0	51	326
ALL INDUSTRIAL							
Softwood	6	2,319	2,325	265	20	259	2,869
Hardwood	19	7,250	7,269	673	84	679	8,705
Total	25	9,569	9,594	938	104	938	11,574
Fuelwood							
Softwood	0	2	2	8	8	11	29
Hardwood	193	1,219	1,412	4,440	4,910	6,030	16,792
Total	193	1,221	1,414	4,448	4,918	6,041	16,821
ALL PRODUCTS							
Softwood	6	2,321	2,327	273	28	270	2,898
Hardwood	212	8,469	8,681	5,113	4,994	6,709	25,497
Total	218	10,790	11,008	5,386	5,022	6,979	28,395

[a]Growing-stock trees, rough or rotten cull trees, and salvable dead trees are from timberland only. Other sources include trees less than 5.0 inches in diameter at breast height and tree tops and limbs from timberland, as well as any material from nontimberland or nonforest land such as fencerows, pastureland, and urban areas.

Output of roundwood products by source of material, Connecticut, 1984

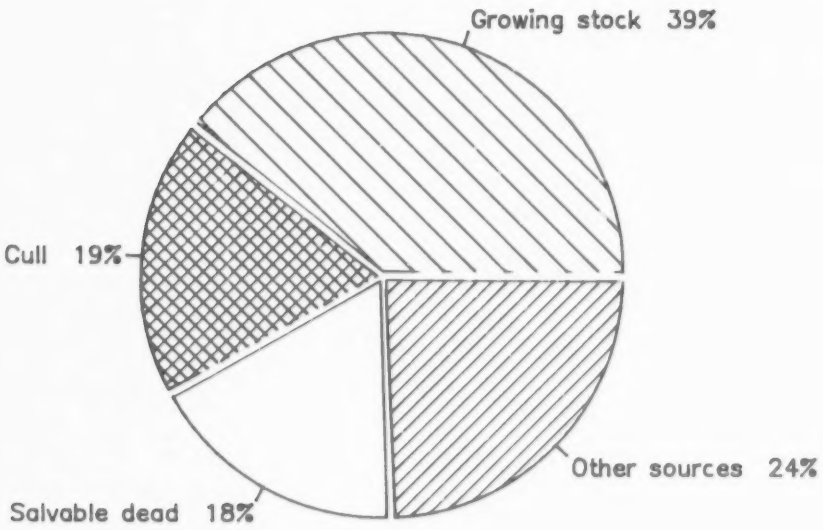


Table 53.--Timber removals from growing stock and sawtimber on timberland by component[a] and softwoods and hardwoods, Connecticut, 1984

Component of timber removals	Growing stock			Sawtimber		
	Softwoods	Hardwoods	All species	Softwoods	Hardwoods	All species
	--------Thousand cubic feet--------			--------Thousand board feet--------		
Roundwood products:						
Sawlogs	1,862	7,112	8,974	12,151	44,811	56,962
Veneer	0	98	98	0	619	619
Pulpwood	250	0	250	1,164	0	1,164
Other products	213	59	272	1,331	369	1,700
Fuelwood	2	1,412	1,414	13	5,197	5.210
All products	2,327	8,681	11,008	14,659	50,996	65,655
Logging residues	227	803	1,030	1,378	5,063	6,441
Withdrawals	5	44	49	17	138	155
Total removals	2,559	9,528	12,087	16,054	56,197	72,251

[a]Logging residue does not include material from tree tops and limbs. Land use change includes land sufficiently productive to be classified as timberland, but withdrawn from production through administrative designation, such as for wilderness or parks.

Table 54.--Volume of unused residues from primary manufacturing plants by softwoods and hardwoods, type of residue, and industry, Connecticut, 1984

(In thousands of cubic feet)

Species group and type of residue	Lumber	Veneer	Other industries	All industries
Softwoods				
Coarse[a]	54	0	0	54
Fine[b]	1	0	0	1
Total	55	0	0	55
Hardwoods				
Coarse	16	0	0	16
Fine	8	0	0	8
Total	24	0	0	24
All species				
Coarse	70	0	0	70
Fine	9	0	0	9
Total	79	0	0	79

[a]Includes slabs, edgings, trimmings, veneer cores, and other material suitable for chipping.

[b]Includes sawdust, shavings, and other materials considered unsuitable for chipping.

Table 55.--Change in area of timberland between inventories by stand-size class, Connecticut, 1972-85

(In thousands of acres)

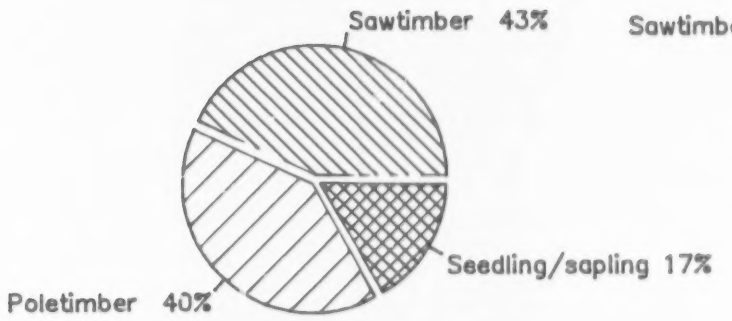
Stand-size class	1972	1985	Change	Change
				Percent
Sawtimber	778.9	1,123.0	344.0	44
Poletimber	722.5	460.7	-261.8	-36
Sapling and seedling	304.1	183.8	-120.3	-40
Nonstocked	.0	9.9	9.9	100
All classes	1,805.5	1,777.3	-28.2	-2

Table 56.--Change in volume between inventories, Connecticut, 1972-85

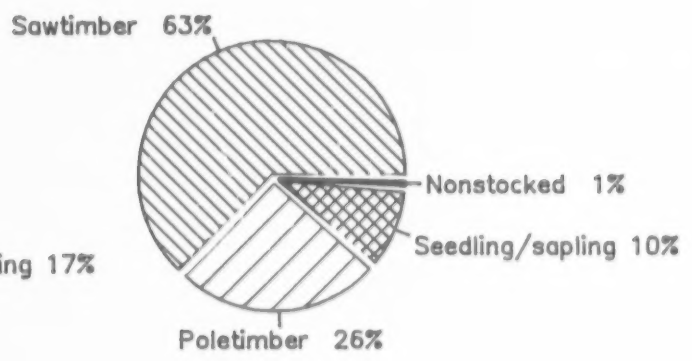
Species group	Growing stock			
	1972	1985	Change	Change
	--- Millions of cubic feet ---			Percent
Softwoods	344.0	429.2	85.2	25
Hardwoods	1,980.2	2,348.4	368.2	19
Total, all groups	2,224.2	2,777.6	553.4	25
	Sawtimber			
	--- Millions of board feet[a] ---			Percent
Softwoods	1,170.1	1,502.4	332.3	28
Hardwoods	4,240.8	6,280.9	2,040.1	48
Total, all groups	5,411.0	7,783.3	2,372.3	44

[a]International 1/4-inch rule.

Area of timberland by stand-size class, Connecticut, 1972 and 1985



1972



1985

67

Table 57.--Sampling errors for estimates in various state-level tables, Connecticut, 1972 and 1985

(In percent)

Area by forest-type group (Table 3)	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
White/red pine	19	60	-	-	18
Spruce/fir	-	100	100	-	73
Hard pine	-	71	98	-	57
Oak/pine	73	51	99	-	39
Oak/hickory	8	15	32	-	6
Elm/ash/red maple	38	37	41	-	22
Northern hardwoods	14	24	36	98	10
All groups	4.7	10.0	17.9	98.4	1.3

Species and diameter class	Number of trees (Table 19)		Growing-stock volume (Table 38 Table 39)		Sawtimber volume (Table 41 Table 42)	
	(1"+)	(5"+)				
Spruce/fir	100	97	-	73	-	100
Red pine	96	96	69	94	74	93
Pitch pine	72	72	88	69	100	63
White pine	29	21	31	22	34	24
Hemlock	23	17	26	18	26	21
Other softwoods	54	31	54	34	89	42
Softwoods	18	12	17	13	18	15
Red maple	10	8	14	9	22	12
Sugar maple	20	14	29	16	35	20
Yellow birch	28	19	28	17	38	24
Sweet birch	16	12	20	13	24	16
Paper birch	35	35	35	29	60	45
Hickory	18	14	24	13	39	18
Beech	28	18	31	23	39	32
White ash	22	15	23	16	28	21
Aspen	44	28	53	26	81	40
Black cherry	36	24	25	23	37	29
White oak	22	12	13	10	15	12
Northern red oak	13	9	12	9	13	10
Other red oaks	19	11	15	9	17	11
Elm	46	26	32	29	58	56
Other hardwoods	24	21	22	14	27	18
Hardwoods	6	3	5	3	7	5
Total, all species	5.5	2.8	3.7	2.9	5.2	4.3
D.b.h. class (inches)						
1.0 to 2.9	9		-	-	-	-
3.0 to 4.9	11		-	-	-	-
5.0 to 6.9	5		9	5	-	-
7.0 to 8.9	5		7	5	-	-
9.0 to 10.9	5		7	5	32	18
11.0 to 12.9	5		6	5	7	5
13.0 to 14.9	5		8	5	9	5
15.0 to 16.9	6		9	7	8	7
17.0 to 18.9	9		11	9	11	9
19.0 to 20.9	11		15	10	14	10
21.0 to 28.9	11		17	12	16	12
29 +	28		32	29	32	28

COUNTY TABLES

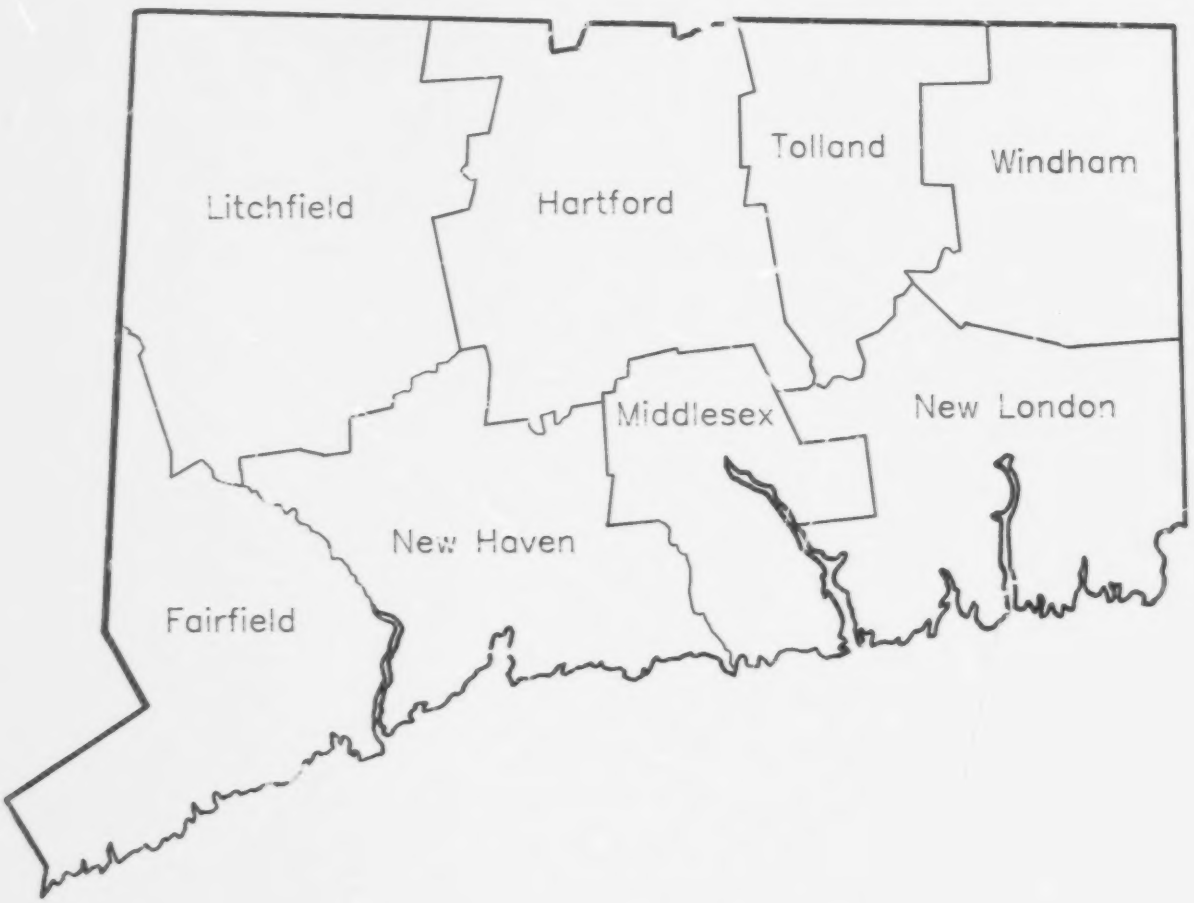


Table 58.--Land area by county and land class, Connecticut, 1985

(In thousands of acres)

County	Forest land area					Non-forest	Total land area
	Timberland	Productive reserved	Urban forest	Unproductive	Total forest		
Fairfield	152.2	3.4	10.3	.5	166.4	238.2	404.6
Hartford	203.2	.8	.0	2.7	206.6	266.5	473.2
Litchfield	389.2	7.9	.0	4.0	401.1	188.6	589.7
Middlesex	150.7	3.2	.0	1.2	155.2	83.4	238.5
New Haven	182.5	1.1	.0	2.2	185.8	204.6	390.4
New London	285.3	2.2	.0	2.0	289.5	138.7	428.2
Tolland	176.5	.8	.0	1.3	178.6	84.9	263.5
Windham	237.7	1.5	.0	3.3	242.5	87.3	329.7
Total	1,777.3	20.9	10.3	17.2	1,825.7	1,292.2	3,117.8

Table 59.--Area of timberland by ownership class and county, Connecticut, 1985

(In thousands of acres)

Ownership class	County								All counties
	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	
National Forest	.0	.0	.0	.0	.0	.0	.0	.0	.0
Other federal	.1	.0	1.7	.0	.5	.0	.7	.7	3.7
State	4.0	2.4	37.2	30.9	4.2	27.4	18.0	18.5	142.6
County and municipal	5.1	14.2	13.4	.8	5.8	4.6	5.2	1.0	50.1
Intergovernmental	.0	.0	.0	.7	19.8	.0	.0	.0	20.5
Total public	9.2	16.6	52.3	32.4	30.3	32.0	23.9	20.2	216.9
Forest industry	.0	.0	3.5	.0	.0	.0	.0	.0	3.5
Farmer	9.0	37.2	48.8	4.9	17.9	21.6	22.3	62.1	223.8
Miscellaneous private:									
Individual	86.0	92.9	191.3	85.1	89.6	172.9	114.5	132.1	964.3
Corporate	29.9	18.9	40.3	16.2	22.4	18.5	3.2	3.9	153.3
Other	18.1	37.5	52.9	12.2	22.4	40.1	12.7	19.5	215.4
Total private	143.0	186.6	336.9	118.3	152.3	253.2	152.6	217.5	1,560.4
All ownerships	152.2	203.2	389.2	150.7	182.5	285.3	176.5	237.7	1,777.3

Table 60.--Area of timberland by county and forest-type group, Connecticut, 1985

(In thousands of acres)

County	Forest-type group							All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	
Fairfield	15.1	.0	.0	.0	72.3	12.0	52.9	152.2
Hartford	24.1	.0	.0	8.4	87.3	22.3	61.1	203.2
Litchfield	45.6	9.1	6.7	5.2	166.1	6.7	149.7	389.2
Middlesex	.0	.0	.0	7.1	96.0	7.1	40.6	150.7
New Haven	17.9	.0	.0	.0	117.5	17.2	29.9	182.5
New London	16.3	5.4	6.2	5.4	182.9	32.4	36.6	285.3
Tolland	14.6	.0	.0	.0	100.5	20.4	41.0	176.5
Windham	32.0	.0	6.3	22.0	143.5	11.8	22.0	237.7
Total, all counties	165.6	14.5	19.2	48.1	966.1	129.9	433.9	1,777.3

Table 61.--Area of timberland by county and stand-size class, Connecticut, 1985

(In thousands of acres)

County	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Fairfield	111.0	24.4	16.8	.0	152.2
Hartford	106.1	58.8	38.2	.0	203.2
Litchfield	264.0	82.9	32.4	9.9	389.2
Middlesex	71.1	69.2	10.4	.0	150.7
New Haven	126.3	32.8	23.5	.0	182.5
New London	184.3	89.4	11.6	.0	285.3
Tolland	125.3	35.9	15.2	.0	176.5
Windham	134.9	67.2	35.6	.0	237.7
Total, all counties	1,123.0	460.7	183.8	9.9	1,777.3

Table 62.--Area of timberland by county and cubic-foot stand-volume class, Connecticut, 1985

(In thousands of acres)

County	Stand-volume class (cubic feet per acre)						All classes
	0-499	500-999	1000-1499	1500-1999	2000-2499	2500+	
Fairfield	12.0	30.1	20.5	20.5	39.7	29.5	152.2
Hartford	31.9	14.7	37.8	61.0	29.9	27.8	203.2
Litchfield	51.4	50.2	49.3	103.8	51.5	82.9	389.2
Middlesex	6.0	16.0	78.1	13.4	37.2	.0	150.7
New Haven	26.2	19.0	24.5	38.1	40.5	34.2	182.5
New London	31.3	30.6	92.7	100.8	29.9	.0	285.3
Tolland	15.1	31.0	41.2	20.2	39.2	29.7	176.5
Windham	18.9	28.9	72.4	75.4	21.7	20.4	237.7
Total, all counties	192.8	220.5	416.5	433.2	289.8	224.6	1,777.3

Table 63.--Area of timberland by county and green ton stand-volume class, Connecticut, 1985

(In thousands of acres)

County	Stand-volume class (green tons per acre)				All classes
	0-49	50-99	100-149	150+	
Fairfield	21.3	76.1	54.8	0.0	152.2
Hartford	20.2	87.4	77.2	18.4	203.2
Litchfield	66.2	175.1	116.8	31.1	389.2
Middlesex	9.0	107.0	34.7	0.0	150.7
New Haven	36.5	71.2	56.6	18.3	182.5
New London	24.8	201.1	59.3	0.0	285.3
Tolland	21.2	67.1	77.7	10.6	176.5
Windham	23.8	148.1	56.3	9.5	237.7
Total, all counties	223.0	933.1	533.3	87.9	1,777.3

Table 64.--Area of timberland by county and stocking class of growing-stock trees, Connecticut, 1985

(In thousands of acres)

County	Stocking class					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Over-stocked	
Fairfield	.0	17.9	40.9	46.9	46.4	152.2
Hartford	8.4	7.6	29.4	61.0	96.8	203.2
Litchfield	9.9	9.1	78.7	128.6	162.8	389.2
Middlesex	.0	6.0	20.5	85.2	39.1	150.7
New Haven	9.0	8.2	16.3	100.4	48.6	182.5
New London	.0	30.6	68.4	146.3	40.0	285.3
Tolland	.0	9.9	30.6	70.4	65.6	176.5
Windham	.0	.0	47.7	108.1	81.9	237.7
Total, all counties	27.3	89.2	332.5	747.0	581.3	1,777.3

Table 65.--Area of timberland by county and productivity class, Connecticut, 1985

(In thousands of acres)

County	Productivity class (cubic feet/acre/year)				All classes
	Very good (120+)	Good (85-119)	Fair (50-84)	Poor (20-49)	
Fairfield	.0	26.4	63.0	62.8	152.2
Hartford	24.2	32.5	54.7	91.8	203.2
Litchfield	29.3	6.7	137.4	215.7	389.2
Middlesex	.0	.0	30.2	120.6	150.7
New Haven	.0	12.5	59.8	110.3	182.5
New London	.0	17.0	69.8	198.4	285.3
Tolland	9.5	15.2	35.9	115.9	176.5
Windham	5.2	6.3	73.5	152.6	237.7
Total, all counties	68.2	116.7	524.3	1,068.1	1,777.3

Table 66.--Net volume of growing-stock trees on timberland by county and forest-type group, Connecticut, 1985

(In millions of cubic feet)

County	Forest-type group							All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	
Fairfield	43.3	.0	.0	.0	108.9	1.8	90.5	244.5
Hartford	66.5	.0	.0	10.0	138.8	5.5	93.1	313.9
Litchfield	140.0	1.4	3.4	4.6	288.7	7.8	255.2	701.2
Middlesex	.0	.0	.0	6.3	160.8	10.3	56.8	234.6
New Haven	34.3	.0	.0	.0	204.8	10.8	47.6	297.5
New London	33.6	2.5	.5	1.9	229.9	35.9	54.9	359.3
Tolland	28.6	.0	.0	.0	181.4	25.5	45.5	281.0
Windham	67.3	.0	3.4	27.0	215.6	14.7	17.7	345.7
Total, all counties	413.7	3.9	7.3	50.3	1,528.9	112.2	661.2	2,777.6

Table 67.--Net volume of growing-stock trees on timberland by county and stand-size class, Connecticut, 1985

(In millions of cubic feet)

County	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Fairfield	200.1	37.0	7.4	.0	244.5
Hartford	223.9	80.3	9.7	.0	313.9
Litchfield	582.2	113.1	5.9	.0	701.2
Middlesex	143.8	85.1	5.7	.0	234.6
New Haven	259.8	34.0	3.7	.0	297.5
New London	275.1	82.2	2.0	.0	359.3
Tolland	231.1	41.4	8.5	.0	281.0
Windham	242.6	85.5	17.6	.0	345.7
Total, all counties	2,158.6	558.6	60.4	.0	2,777.6

Table 68.--Net volume of growing-stock trees on timberland by species and county, Connecticut, 1985

(In millions of cubic feet)

Species	County								All counties
	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	
Spruce/fir	.0	.0	1.4	.0	.0	.8	.0	.0	2.2
Red pine	.0	19.7	.8	.0	.0	.0	.0	.0	20.4
Pitch pine	.0	.9	.0	1.0	.0	.0	3.5	.0	5.4
White pine	.0	33.0	28.7	1.1	12.4	12.3	22.0	45.5	155.0
Hemlock	25.8	17.7	119.4	3.7	26.6	14.3	3.0	19.9	230.2
Other softwoods	.3	.0	2.3	3.0	.2	3.2	3.4	3.5	15.9
Total softwoods	26.1	71.2	152.5	8.8	39.2	30.7	31.9	68.9	429.2
Red maple	35.7	78.7	156.8	36.4	58.9	90.1	88.9	52.6	598.0
Sugar maple	7.8	9.1	41.8	7.7	12.8	6.8	16.8	11.9	114.7
Yellow birch	1.4	2.4	10.1	3.2	4.8	9.5	2.7	2.1	36.1
Sweet birch	31.3	12.2	42.6	30.1	21.1	16.2	15.0	8.8	177.3
Paper birch	.0	3.0	8.7	.5	.0	.0	.7	1.2	13.9
Hickory	12.4	8.0	18.5	19.4	9.3	26.6	23.0	12.5	129.8
Beech	11.1	4.6	9.2	13.6	7.0	5.1	1.7	.4	52.7
White ash	33.8	12.6	22.7	6.4	14.0	10.0	19.3	22.2	140.9
Aspen	1.4	1.8	2.3	.0	1.1	4.0	1.1	3.8	15.4
Black cherry	.5	1.7	15.5	2.5	1.3	.0	3.4	3.2	28.1
White oak	6.2	11.7	10.4	19.1	23.7	41.2	27.2	39.5	179.0
Northern red oak	41.9	30.2	154.8	39.9	52.1	54.1	19.1	55.6	447.6
Other red oaks	11.1	50.0	22.4	33.9	35.0	45.2	24.9	62.0	284.5
Elm	.0	.9	2.2	.9	.4	2.2	1.4	.9	8.8
Other hardwoods	23.6	15.8	30.8	12.4	16.9	17.8	3.9	.2	121.4
Total hardwoods	218.4	242.6	548.6	225.9	258.4	328.6	249.1	276.8	2,348.4
Total, all species	244.5	313.9	701.2	234.6	297.5	359.3	281.0	345.7	2,777.6

Table 69.--Net volume of growing-stock and sawtimber trees on timberland by county and species group, Connecticut, 1985

County	Growing stock			Sawtimber		
	Softwoods	Hardwoods	All groups	Softwoods	Hardwoods	All groups
	Million cubic feet			Million board feet[a]		
Fairfield	26.1	218.4	244.5	85.1	693.3	768.5
Hartford	71.2	242.6	313.9	256.6	634.3	891.0
Litchfield	152.5	548.6	701.2	537.9	1,493.6	2,031.5
Middlesex	8.8	225.9	234.6	18.6	541.7	560.2
New Haven	39.2	258.4	297.5	142.1	743.8	885.9
New London	30.7	328.6	359.3	99.0	849.2	948.2
Tolland	31.9	249.1	281.0	113.3	659.0	772.2
Windham	68.9	276.8	345.7	249.9	676.0	925.9
Total, all counties	429.2	2,348.4	2,777.6	1,502.4	6,280.9	7,783.3

[a]International 1/4-inch rule.

Table 70.--Net volume of sawtimber trees on timberland by county and forest-type group, Connecticut, 1965

(In millions of board feet)[a]

County	Forest-type group							All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	
Fairfield	137.2	0	0	0	363.3	1.9	266.0	768.5
Hartford	264.5	0	0	17.0	337.6	0	271.9	891.0
Litchfield	447.4	0	2.0	6.2	823.2	17.8	734.9	2,031.5
Middlesex	0	0	0	4.4	404.4	9.7	141.8	560.2
New Haven	142.4	0	0	0	571.8	6.6	165.0	885.9
New London	108.1	3.9	0	4.5	641.5	73.8	116.3	948.2
Tolland	96.1	0	0	0	509.0	52.9	114.3	772.2
Windham	206.0	0	5.2	88.6	541.9	32.4	48.8	925.9
Total, all counties	1,401.8	3.9	7.3	120.8	4,295.5	195.0	1,859.1	7,783.3

[a]International 1/4-inch rule.

Table 71.--Net volume of sawtimber trees on timberland by county and stand-size class, Connecticut, 1985

(In millions of board feet)[a]

County	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Fairfield	662.0	67.7	38.7	.0	768.5
Hartford	737.2	149.8	3.9	.0	891.0
Litchfield	1,887.1	138.0	6.4	.0	2,031.5
Middlesex	440.8	106.3	13.2	.0	560.2
New Haven	839.4	38.5	8.0	.0	885.9
New London	835.7	109.2	3.2	.0	948.2
Tolland	704.7	55.2	12.3	.0	772.2
Windham	767.2	117.2	41.5	.0	925.9
Total, all counties	6,874.1	782.0	127.2	.0	7,783.3

[a]International 1/4-inch rule.

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Table 72. Net volume of sawtimber trees on timberland by species and county, Connecticut, 1985

(In millions of board feet)[a]

Species	County								All counties
	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	
Spruce/fir	.0	.0	.0	.0	.0	3.9	.0	.0	3.9
Red pine	.0	78.0	3.0	.0	.0	.0	.0	.0	81.0
Pitch pine	.0	3.2	.0	.8	.0	.0	5.1	.0	9.1
White pine	.0	140.6	120.1	5.2	37.4	35.1	91.1	165.0	594.6
Hemlock	85.1	34.9	411.5	11.3	104.7	57.9	12.2	81.2	798.8
Other softwoods	.0	.0	3.3	1.3	.0	2.0	4.8	3.7	15.0
Total softwoods	85.1	256.6	537.9	18.6	142.1	99.0	113.3	249.9	1,502.4
Red maple	88.0	212.8	437.0	28.1	126.1	206.2	205.9	108.8	1,413.0
Sugar maple	26.3	29.4	115.9	20.6	29.3	11.1	45.0	33.6	311.3
Yellow birch	3.6	6.8	16.2	6.4	7.3	16.8	6.1	1.3	64.7
Sweet birch	58.8	30.0	74.2	69.3	32.5	28.3	22.3	8.3	323.8
Paper birch	.0	4.6	11.1	.0	.0	.0	.9	.0	16.6
Hickory	42.5	19.9	48.4	22.3	24.4	62.9	59.8	30.3	310.6
Beech	45.-	7.4	24.2	30.3	20.9	14.9	6.6	.0	155.7
White ash	91.5	23.4	53.3	14.8	38.3	17.6	51.0	29.6	319.5
Aspen	5.2	.0	5.0	.0	4.1	7.6	1.3	8.6	31.8
Black cherry	.0	.0	29.8	2.5	.0	.0	4.8	4.7	41.8
White oak	24.8	14.0	28.1	49.3	94.6	130.7	93.1	107.8	542.3
Northern red oak	153.9	111.3	491.7	139.1	178.2	169.2	62.6	184.0	1,490.1
Other red oaks	44.7	116.7	54.5	103.4	134.7	149.0	83.1	159.0	845.1
Elm	.0	.0	6.7	.0	.0	.0	3.6	.0	10.3
Other hardwoods	98.7	57.9	97.4	49.5	53.3	34.8	12.8	.0	404.4
Total hardwoods	683.3	634.3	1,493.6	541.7	743.8	849.2	659.0	676.0	6,280.9
Total, all species	768.5	891.0	2,031.5	560.2	885.9	948.2	772.2	925.9	7,783.3

[a]International 1/4-inch rule.

Table 73.--Number of all live nut- and fruit-producing trees on timberland by species and county, Connecticut, 1985

(In thousands of trees)

Species	County								All counties
	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	
Eastern redcedar	143.7	.0	893.0	1,157.8	.0	907.3	.0	1,129.7	4,231.5
Hickory	229.6	720.5	2,545.8	1,989.3	880.3	2,594.3	1,037.7	1,452.9	11,450.6
Dogwood	.0	65.7	.0	74.8	281.7	66.8	239.2	.0	728.2
Beech	663.5	645.1	798.8	1,266.4	382.1	18.3	294.3	132.2	4,205.7
Butternut	.0	33.2	.0	.0	.0	.0	49.4	.0	82.6
Apple	70.7	.0	215.8	.0	.0	.0	.0	.0	286.5
Blackgum	.0	.0	.0	.0	300.9	493.4	87.8	.0	882.1
Eastern hophornbeam	71.9	.0	68.2	.0	.0	.0	.0	.0	140.0
Black cherry	141.3	734.8	1,914.2	.0	215.5	437.6	601.3	743.0	4,787.8
Chokecherry	.0	.0	.0	.0	.0	100.1	.0	.0	100.1
White oak	328.0	1,775.0	1,277.6	2,408.3	1,796.0	2,846.4	954.6	4,295.6	15,681.6
Scarlet oak	427.9	1,621.1	784.5	848.9	209.6	1,007.5	1,072.4	3,871.7	9,843.6
Pin oak	.0	131.2	.0	.0	.0	.0	.0	.0	131.2
Chestnut oak	82.2	265.9	1,925.2	761.4	1,295.4	1,879.6	37.6	.0	6,247.3
Northern red oak	1,683.7	1,831.4	9,454.4	2,430.9	3,241.3	4,383.0	1,149.6	4,828.1	29,002.5
Black oak	122.6	2,969.5	932.6	2,386.9	960.4	2,063.8	777.7	1,874.3	12,087.7
Sassafras	.0	160.7	110.8	179.1	427.9	861.9	.0	202.0	1,942.4
Total, all species	3,970.1	10,954.2	20,921.0	13,503.7	9,991.2	17,659.9	6,301.7	18,529.5	101,831.4

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Table 74.--Number of seedlings, saplings, and shrubs with observed browse and percent of total on timberland by species and county, Connecticut, 1985

(In thousands of stems)

Species	County							
	Fairfield		Hartford		Litchfield		Middlesex	
	Number browsed	Percent of total	Number browsed	Percent of total	Number browsed	Percent of total	Number browsed	Percent of total
Eastern white pine	.0	0	7,348.5	40	.0	0	.0	0
Total softwoods	.0		7,348.5		.0		.0	
Red maple	65,946.4	68	17,548.7	9	37,409.0	18	46,843.3	32
Sugar maple	.0	0	9,577.3	31	53,646.3	33	34,249.7	50
Other maple species	.0	0	.0	0	29,190.1	75	.0	0
Serviceberry	.0	0	.0	0	27,816.6	35	.0	0
Yellow birch	.0	0	.0	0	7,947.6	44	8.102.2	51
Sweet birch	16,477.9	57	1,915.5	3	13,858.7	21	21,789.6	31
Paper birch	.0	0	7,767.8	100	.0	0	2,179.0	100
Gray birch	.0	0	.0	0	.0	0	5,923.2	75
American hornbeam	.0	0	.0	0	7,891.8	67	37,175.8	90
Hickory species	2,094.4	13	.0	0	7,836.1	14	8,511.3	23
American chestnut	4,119.5	20	1,915.5	11	11,638.4	54	.0	0
Flowering dogwood	.0	0	5,746.4	75	2,142.8	35	3,948.8	39
Hawthorn	.0	0	.0	0	.0	0	.0	0
American beech	6,283.3	23	.0	0	15,895.2	37	4,357.9	17
White ash	2,094.4	8	17,292.1	43	1,979.3	3	10,076.6	28
Other ash species	.0	0	.0	0	3,973.8	100	.0	0
Blackgum	2,059.7	100	.0	0	.0	0	.0	0
Eastern hophornbeam	12,358.5	20	.0	0	5,960.7	38	3,948.8	18
Aspen species	2,081.1	17	.0	0	6,005.1	75	.0	0
Pin cherry	4,188.9	50	.0	0	3,973.8	67	.0	0
Black cherry	2,094.4	4	5,772.9	28	43,867.8	57	15,999.8	89
Chokecherry	8,239.0	100	5,772.9	50	.0	0	23,897.5	86
White oak	2,094.4	50	1,915.5	14	5,394.8	26	10,281.1	39
Scarlet oak	.0	0	.0	0	15,727.9	80	.0	0
Chestnut oak	.0	0	9,577.3	71	3,973.3	20	4,357.9	100
Northern red oak	2,059.7	10	14,530.7	61	29,524.7	28	4,357.9	17
Black oak	.0	0	13,408.2	41	9,934.5	26	14,843.6	78
Sassafras	2,059.7	100	.0	0	5,960.7	16	41,329.1	62
American elm	.0	0	.0	0	.0	0	.0	0
Other hardwoods	4,119.5	15	.0	0	.0	0	.0	0
Total hardwoods	138,370.9		112,740.7		351,549.6		302,173.2	
Total, all trees	138,370.9		120,089.2		351,549.6		302,173.2	

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Table 74.(Cont'd.)--Number of seedlings, saplings, and shrubs with observed browse and percent of total on timberland by species and county, Connecticut, 1985

(In thousands of stems)

Species	County							
	Fairfield		Hartford		Litchfield		Middlesex	
	Number browsed	Percent of total	Number broused	Percent of total	Number browsed	Percent of total	Number browsed	Percent of total
Sheep laurel	4,162.2	100	.0	0	.0	0	.0	0
Mountain laurel	.0	0	.0	0	.0	0	.0	0
Total evergreen shrubs	4,162.2		.0		.0		.0	
Alder	.0	0	.0	0	.0	0	.0	0
Azalea	.0	0	11,492.8	100	.0	0	.0	0
Sweetfern	.0	0	.0	0	1,931.1	20	.0	0
Silky dogwood	.0	0	.0	0	.0	0	.0	0
Other dogwood species	16,477.9	80	7,767.8	20	18,862.1	26	.0	0
American hazelnut	.0	0	.0	0	7,947.6	57	.0	0
Beaked hazelnut	.0	0	.0	0	19,869.0	34	.0	0
Witch-hazel	6,179.2	23	11,492.8	75	17,882.1	9	.0	0
Winterberry holly	.0	0	.0	0	.0	0	.0	0
Common spicebush	20,904.3	37	1,915.5	8	126,994.4	49	5,923.2	73
Bush honeysuckle	.0	0	.0	0	32,885.1	29	.0	0
Buckthorn	.0	0	.0	0	5,960.7	25	.0	0
Rose species	6,179.2	37	.0	0	.0	0	.0	0
Rubus species	.0	0	.0	0	312,238.8	45	.0	0
American elderberry	.0	0	.0	0	7,947.6	67	.0	0
Spirea species	.0	0	7,208.7	44	147,030.7	73	.0	0
Blueberry species	121,732.9	48	137,560.2	42	93,684.9	15	54,812.0	16
Maple-leaf viburnum	221,523.7	56	63,506.0	34	164,857.0	54	139,026.8	50
Hobblebush viburnum	.0	0	.0	0	.0	0	.0	0
Arrowwood	52,294.0	37	.0	0	.0	0	2,179.0	4
Other viburnum species	.0	0	.0	0	.0	0	.0	0
Other deciduous shrubs	2,094.4	2	.0	0	76,362.5	64	.0	0
Total deciduous shrubs	447,385.6		240,943.7		1,034,453.5		201,941.0	
All species	589,918.7		361,032.9		1,386,003.1		504,114.1	

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Table 74. (Cont'd.)--Number of seedlings, saplings, and shrubs with observed browse and percent of total on timberland by species and county, Connecticut, 1985

(In thousands of stems)

Species	County								Total browsed
	New Haven		New London		Tolland		Windham		
	Number browsed	Percent of total	Number browsed	Percent of total	Number browsed	Percent of total	Number browsed	Percent of total	
Eastern white pine	.0	0	.0	0	.0	0	.0	0	7,348.5
Total softwoods	.0		.0		.0		.0		7,348.5
Red maple	43,335.2	30	21,956.8	18	.0	0	16,988.8	13	250,028.2
Sugar maple	.0	0	.0	0	.0	0	3,926.4	5	101,399.7
Other maple species	.0	0	.0	0	.0	0	.0	0	29,190.1
Serviceberry	.0	0	.0	0	.0	0	.0	0	27,816.6
Yellow birch	.0	0	20,924.1	37	10,997.5	50	.0	0	47,971.4
Sweet birch	.0	0	35,042.9	51	.0	0	.0	0	89,084.7
Paper birch	.0	0	.0	0	.0	0	.0	0	9,946.7
Gray birch	.0	0	.0	0	4,264.1	49	.0	0	10,187.3
American hornbeam	.0	0	9,734.1	42	6,598.5	10	.0	0	61,400.2
Hickory species	.0	0	.0	0	.0	0	.0	0	18,441.8
American chestnut	.0	0	.0	0	.0	0	.0	0	17,673.4
Flowering dogwood	3,514.9	67	.0	0	.0	0	.0	0	15,352.9
Hawthorn	.0	0	.0	0	.0	0	1,903.7	100	1,903.7
American beech	.0	0	.0	0	.0	0	.0	0	26,536.4
White ash	12,494.4	57	9,917.0	32	2,132.0	5	3,824.4	15	59,810.3
Other ash species	.0	0	.0	0	.0	0	.0	0	3,973.8
Blackgum	3,899.6	67	.0	0	.0	0	.0	0	5,959.4
Eastern hophornbeam	1,949.8	20	.0	0	.0	0	.0	0	24,217.8
Aspen species	.0	0	.0	0	2,087.5	100	.0	0	10,173.7
Pin cherry	.0	0	.0	0	.0	0	.0	0	8,162.7
Black cherry	3,514.9	4	69,310.2	34	.0	0	12,476.0	9	153,036.0
Chokecherry	.0	0	.0	0	.0	0	.0	0	37,909.3
White oak	1,757.4	23	23,362.0	40	.0	0	3,807.4	5	48,612.6
Scarlet oak	.0	0	.0	0	.0	0	.0	0	15,727.9
Chestnut oak	3,899.6	100	1,800.2	8	.0	0	.0	0	23,608.9
Northern red oak	.0	0	.0	0	.0	0	.0	0	50,473.1
Black oak	.0	0	.0	0	.0	0	.0	0	38,186.4
Sassafras	.0	0	.0	0	.0	0	.0	0	49,349.6
American elm	.0	0	.0	0	2,199.5	34	.0	0	2,199.5
Other hardwoods	.0	0	.0	0	.0	0	.0	0	4,119.5
Total hardwoods	74,365.9		192,047.4		28,279.0		42,926.7		1,242,453.3
Total, all trees	74,365.9		192,047.4		28,279.0		42,926.7		1,249,801.8

Table 74. (Cont'd.)--Number of seedlings, saplings, and shrubs with observed browse and percent of total on timberland by species and county, Connecticut, 1985

(In thousands of stems)

Species	County								Total browsed
	New Haven		New London		Tolland		Windham		
	Number browsed	Percent of total	Number browsed	Percent of total	Number browsed	Percent of total	Number browsed	Percent of total	
Sheep laurel	.0	0	.0	0	.0	0	.0	0	4,162.2
Mountain laurel	.0	0	.0	0	.0	0	29,473.3	25	29,473.3
Total evergreen shrubs	.0		.0		.0		29,473.3		33,635.5
Alder	8,212.5	19	.0	0	.0	0	.0	0	8,212.5
Azalea	.0	0	.0	0	.0	0	.0	0	11,492.8
Sweetfern	.0	0	.0	0	.0	0	.0	0	1,931.1
Silky dogwood	.0	0	.0	0	24,006.0	100	.0	0	24,006.0
Other dogwood species	12,318.8	58	.0	0	.0	0	.0	0	55,426.6
American hazelnut	.0	0	.0	0	.0	0	7,852.7	8	15,800.4
Beaked hazelnut	.0	0	.0	0	.0	0	.0	0	19,869.0
Witch-hazel	.0	0	.0	0	27,716.4	40	.0	0	63,270.5
Winterberry holly	10,265.7	100	.0	0	.0	0	.0	0	10,265.7
Common spicebush	15,598.5	9	87,305.9	70	23,452.4	15	17,668.7	90	299,762.8
Bush honeysuckle	9,749.1	83	.0	0	.0	0	.0	0	42,634.1
Buckthorn	.0	0	.0	0	.0	0	.0	0	5,960.7
Rose species	.0	0	12,530.8	48	.0	0	.0	0	18,710.1
Rubus species	.0	0	.0	0	.0	0	.0	0	312,238.8
American elderberry	.0	0	.0	0	3,131.2	100	.0	0	11,078.8
Spirea species	10,265.7	10	146,387.8	95	.0	0	2,026.9	4	312,919.8
Blueberry species	105,406.5	40	129,944.3	25	.0	0	87,157.8	10	730,298.7
Maple-leaf viburnum	111,552.7	29	10,282.6	6	.0	0	9,764.9	8	720,513.7
Hobblebush viburnum	.0	0	17,037.2	42	4,264.1	10	.0	0	21,301.3
Arrowwood	7,799.3	12	.0	0	.0	0	11,575.2	46	73,847.3
Other viburnum species	.0	0	.0	0	3,131.2	100	.0	0	3,131.2
Other deciduous shrubs	.0	0	157,876.0	20	21,522.7	10	.0	0	257,855.6
Total deciduous shrubs	291,168.8		561,364.8		107,224.0		136,046.3		3,020,527.7
All species	365,534.7		753,412.2		135,503.0		208,446.3		4,303,965.0

Table 75.--Number of standing dead trees (5.0+ inches d.b.h.) on timberland by species and county, Connecticut, 1985

(In thousands of trees)

Species	County								All counties
	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	
Red pine	.0	123.7	.0	.0	.0	.0	.0	.0	123.7
Pitch pine	.0	.0	.0	.0	.0	.0	274.6	34.7	309.3
White pine	.0	259.1	868.6	.0	27.9	.0	.0	422.4	1,578.0
Hemlock	178.1	197.0	1,010.7	.0	19.8	285.2	.0	305.2	1,996.0
Other softwoods	240.1	.0	145.8	268.4	35.1	.0	.0	.0	689.5
Total softwoods	418.3	579.7	2,025.1	268.4	82.9	285.2	274.6	762.3	4,696.4
Red maple	345.2	436.9	963.7	168.1	243.2	369.1	227.7	67.3	2,821.2
Sugar maple	.0	.0	68.2	.0	.0	.0	.0	.0	68.2
Yellow birch	.0	28.9	317.6	.0	.0	36.4	.0	65.3	448.2
Sweet birch	341.1	.0	454.7	325.6	157.9	34.9	142.8	136.7	1,593.7
Paper birch	.0	131.4	134.4	.0	.0	.0	.0	.0	265.8
Hickory	109.2	.0	.0	.0	183.8	166.9	.0	65.3	525.3
Beech	.0	.0	29.5	.0	.0	.0	.0	.0	29.5
White ash	236.3	.0	719.2	.0	66.9	.0	298.7	65.3	1,386.4
Aspen	.0	412.1	.0	.0	.0	73.1	.0	65.3	550.5
Black cherry	141.3	.0	194.8	.0	.0	66.8	17.9	121.3	542.0
White oak	.0	433.7	480.6	203.0	265.5	879.8	561.7	2,221.8	5,045.9
Northern red oak	253.1	165.1	1,336.5	227.9	146.1	61.8	.0	696.5	2,887.0
Other red oaks	87.8	335.1	898.6	285.0	186.9	373.7	.0	601.6	2,768.7
Elm	.0	192.3	34.0	.0	.0	43.0	36.5	.0	305.7
Other commercial hardwoods	.0	32.8	354.7	112.7	272.3	308.4	65.2	.0	1,146.0
Noncommercial hardwoods	60.7	65.7	204.3	.0	137.3	316.0	.0	.0	784.0
Total hardwoods	1,574.7	2,234.0	6,190.6	1,322.2	1,660.0	2,729.7	1,350.4	4,106.5	21,168.2
Total, all species	1,993.0	2,813.7	8,215.7	1,590.7	1,742.9	3,014.9	1,625.0	4,868.8	25,864.6

Table 76.--Index to land-use edge by type of land use and county, Connecticut, 1985

(Edge hits[a] per thousand acres)

Land-use edge type	County								All counties
	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham	
Forest -									
forest	8.6	7.0	12.8	8.0	5.8	19.8	4.3	14.4	10.6
shrub	2.9	2.9	4.2	3.5	3.8	3.4	4.8	9.3	4.3
agricultural/ herbaceous	3.1	12.1	8.3	9.5	4.5	18.7	12.5	17.5	10.6
cultural	16.7	15.9	8.1	13.4	16.2	14.6	16.9	8.7	13.5
Shrub -									
agricultural/ herbaceous	.6	1.6	1.3	4.3	.8	1.2	2.5	2.6	1.7
cultural	1.5	.9	.7	3.5	1.6	.1	.9	1.3	1.1
Agicultural/herbaceous -									
cultural	1.4	6.5	2.1	4.3	1.7	1.9	2.9	4.2	3.1
Hedgerow	2.1	2.8	3.2	2.8	1.5	4.3	3.1	4.5	3.0
Transportation right-of-way	19.6	18.5	11.5	12.4	16.6	23.4	13.5	19.8	17.0
Utility right-of-way	.7	2.8	1.8	3.0	3.3	2.0	2.3	1.7	2.1
Aquatic	13.8	8.6	10.5	7.7	12.1	10.3	7.3	12.8	10.6
All types	71.1	79.5	64.5	72.5	67.7	99.7	71.1	96.6	77.5
Number of edge plots	41	48	61	24	40	43	27	36	320
Number of edge hits	1,633	2,137	2,202	974	1,516	2,401	1,074	1,947	23,884

[a]Edge condition on an aerial photograph sampled by a line transect (Brooks and Sykes 1984).

Table 77.--Sampling errors for various county-level estimates, Connecticut, 1985

(In percent)

County	Timberland area	Growing-stock volume	Sawtimber volume
Fairfield	3.1	10.1	13.1
Hartford	6.2	8.2	12.1
Litchfield	3.0	7.0	10.2
Middlesex	5.0	7.6	15.8
New Haven	4.3	12.0	14.7
New London	1.7	5.4	9.9
Tolland	3.1	6.4	9.2
Windham	1.9	5.8	9.8
Total	1.3	2.9	4.3

Literature Cited

Brooks, Robert T.; Sykes, Karen J. 1984. Sampling land use edge from aerial photographs--line transect vs. circular patterns. Res. Note NE-321. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 6 p.

Dickson, David R.; Bowers, Teresa M. 1976. Forest Statistics for Connecticut. Resour. Bull. NE-44. Upper Darby, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 40 p.

Scott, Charles T. 1979. Northeastern forest survey board-foot volume equations. Res.Note NE-271. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 3 p.

Scott, Charles T. 1981. Northeastern forest survey revised cubic-foot volume equations. Res. Note NE-304. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 3 p.

Appendix

Definition of Terms

Acceptable tree. (a) Live sawtimber trees that do not qualify as preferred trees but are not cull trees. (b) Live poletimber trees that prospectively will not qualify as preferred trees, but are not now or prospectively cull trees.

Accretion. The estimated net growth on growing-stock trees that were measured during the previous inventory, divided by the number of growing seasons between surveys. It does not include the growth on trees that were cut during the period, nor those trees that died.

Agricultural/herbaceous land. Land with herbaceous plant cover, both grasses and/or forbs, including cropland, pasture land, and natural grass lands.

Aquatic edge. An edge condition created when a terrestrial land use abuts a lake, pond, river, stream, or major wetland.

Basal area class. A classification of forest land in terms of basal area (cross sectional area of a tree stem at breast height in square feet per acre) of all live trees of all sizes.

Board foot. A unit of lumber measurement 1 foot long, 1 foot wide, and 1 inch thick, or its equivalent.

Board-foot stand-volume class. A classification of forest land in terms of net board-foot volume of sawtimber trees per acre.

Bog/Marsh/Swamp. Land that has less than 10 percent stocking with live trees; and which characteristically supports low, generally herbaceous or shrubby vegetation, and which is intermittently covered with water during all seasons; includes tidal areas that are covered with salty or brackish water during high tides.

Browse. Forage resource; defined here as current twig growth of woody-stemmed plants occurring between 1 and 8 feet in height.

Browse-utilization class. Four levels of browse use; none, light (1-10 percent available), moderate (11-40), and heavy (greater than 40 percent).

Cabin log. A relatively slender roundwood product that is cut to standard sizes; meets specifications of strength, straightness, and soundness; and is finished for use in constructing cabins, barns, and other buildings.

Cavity. A hollowed out space in a tree, either natural or faunal caused; frequently used as a nesting site or temporary refuge by many species of wildlife.

Coarse residues. Manufacturing residues suitable for chipping, such as slabs, edgings, and veneer cores.

Commercial species. Tree species presently or prospectively suitable for industrial wood products. Excludes species of typically small size, poor form, or inferior quality, such as hawthorn or sumac.

Condition class. Classification of trees based on live or dead and condition of top of the tree (i.e. intact, broken, dead).

Cord. See Standard cord.

County and municipal lands. Lands owned by counties and local public agencies or municipalities or leased to them for 50 years or more.

Cropland. Land that currently supports agricultural crops including silage and feed grains, bare farm fields resulting from cultivation or harvest, and maintained orchards.

Cubic-foot stand-volume class. A classification of forest land in terms of net cubic-foot volume of all live trees per acre.

Cull tree. A rough tree or a rotten tree.

Cull increment. The net volume of growing-stock trees on the previous inventory that became rough or rotten trees in the current inventory,

divided by the number of growing seasons between surveys.

Cultural land. Land with human development as the major land cover; includes industrial, commercial, and residential land uses.

Diameter at breast height (d.b.h.). The diameter outside bark of a standing tree measured at 4-1/2 feet above the ground.

Farmer-owned lands. Lands owned by farm operators, whether part of the farmstead or not. Excludes land leased by farm operators from nonfarm owners.

Federal lands. Lands (other than National Forests) administered by Federal agencies.

Fine residues. Manufacturing residues not suitable for chipping, such as sawdust and shavings.

Forest industry lands. Lands owned by companies or individuals that operate primary wood-using plants.

Forest land. Land that is at least 10 percent stocked with trees of any size, or that formerly had such tree cover and is not currently developed for a nonforest use. The minimum area for classification of forest land is 1 acre.

Forest type. A classification of forest land based on the species that form a plurality of live tree basal area stocking.

Forest-type group. A combination of forest types that share closely associated species or site requirements. The many forest types in Connecticut were combined into the following major forest-type groups (the descriptions apply to forests in Connecticut):

a. White/red pine--forests in which white pine, hemlock, or red pine make up the plurality of the stocking, singly or in combination; common associates include sugar maple, red maple, red spruce, balsam fir, and paper birch.

b. Spruce/fir--forests in which red spruce, northern white-cedar, balsam fir, white spruce, black spruce, or tamarack, singly or in combination, make up a plurality of the stocking; common associates include paper birch, red maple, aspen, white pine, hemlock, and sugar maple.

c. Oak/pine--forests in which northern red oak or white ash, singly or in combination, make up a plurality of the stocking but where white pine contributes 25 to 50 percent of the stocking; beech, red spruce, and sugar maple are associates.

d. Oak/hickory--forests in which upland oaks, red maple (when associated with central hardwoods), or hawthorn, singly or in combination, make up a plurality of the stocking and in which white pine makes up less than 25 percent of the stocking; common associates include white pine, paper birch, red spruce, beech, hemlock, sugar maple, and red maple.

e. Elm/ash/red maple--forests in which black ash, elm, red maple (when growing on wet sites), willow, or green ash, singly or in combination, make up a plurality of the stocking; common associates include balsam fir, red maple, aspen, and white ash.

f. Northern hardwoods--forests in which sugar maple, beech, yellow birch, red maple (when associated with northern hardwoods), pin cherry, or black cherry, singly or in combination, make up a plurality of the stocking; common associates include balsam fir, red spruce, paper birch, hemlock, white ash, aspen, and basswood.

g. Aspen/birch--forests in which aspen, paper birch, or gray birch, singly or in combination, make up a plurality of the stocking; common associates include balsam fir, red maple, red spruce, white ash, and white pine.

Fuelwood. Round, split, or chipped woody material (with or without bark) that is converted to household, commercial, or industrial energy.

Geographic unit. A county or a group of counties within a state that is large enough to provide an adequate sample that will yield statistically reliable estimates of timberland area, volume, and components of change.

Green ton. A unit of measure of green weight equivalent to 2,000 pounds or 907.1848 kilograms.

Green ton stand-volume class. A classification of forest land in terms of net green weight of the aboveground components of all live trees per unit area. It is usually expressed in green tons per acre.

Green weight. The weight of wood and bark as it would be if it had been recently cut. It is usually expressed in pounds or tons.

Gross growth. The sum of accretion and ingrowth.

Growing-stock trees. Live trees of commercial species classified as sawtimber, poletimber, saplings, or seedlings; that is, all live trees of commercial species except rough and rotten trees.

Growing-stock volume. Net volume, in cubic feet, of growing-stock trees 5.0 inches d.b.h. and larger from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central

stem breaks into limbs. Net volume equals gross volume, less deduction for cull.

Hardwoods. Dicotyledonous trees, usually broad-leaved and deciduous.

Harvested cropland. All land from which crops were harvested or hay was cut and all land in orchards, citrus groves, vineyards, and nursery and greenhouse products.

Idle farmland. Former cropland or pasture that has not been tended within the last 2 years and that has less than 10 percent stocking with live trees, (established seedlings or larger trees) regardless of species.

Improved/maintained pasture. Land that is currently used and maintained for grazing (not including grazed cropland).

Indian lands. (a) Lands held in trust by the United States or States for Indian tribes or individual Indians. (b) Lands owned in fee by Indian tribes whether subject to Federal or State restrictions against alienation or not.

Industrial and commercial land. Supply yards, parking lots, factories, etc.

Industrial products. All roundwood products except fuelwood.

Ingrowth. The estimated net volume of growing-stock trees that became 5.0 inches d.b.h. or larger during the period between inventories, divided by the number of growing seasons between surveys.

International 1/4-inch rule. A log rule or formula for estimating the board-foot volume of logs. The mathematical formula is:

$$(0.22D^2 - 0.71D)(0.904762)$$

for 4-foot sections, where D=diameter inside bark at the small end of the log section. This rule is used as the USDA Forest Service standard log rule in the Eastern United States.

Land area. (a) Bureau of Census: The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than 1/8 statute mile wide; and lakes, reservoirs, and ponds less than 40 acres in area. (b) Forest Inventory and Analysis: same as (a) except that the minimum width of streams, etc., is 120 feet, and the minimum size of lakes, etc., is 1 acre.

Land-use edge. A condition created by the juxtaposition of two differing land uses.

Logging residues. The unused portions of growing-stock trees harvested or killed in the process of logging.

Manufacturing plant residues. Wood materials that are generated when round timber (roundwood) is converted into wood products. This includes slabs, edgings, trimmings, bark, miscuts, sawdust, shavings, veneer cores and clippings, and pulp screening. If these residues are used, they are referred to as plant byproducts.

Mast. Seed produced by woody-stemmed, perennial plants, generally refers to soft (fruit) and hard (nuts) mast.

Mining and waste land. Surface mining, gravel pits, dumps.

Miscellaneous private lands. Privately owned lands other than forest industry and farmer-owned lands.

Mortality. The estimated net volume of growing-stock trees at the previous inventory that died from natural causes before the current inventory, divided by the number of growing seasons between surveys.

National Forest lands. Federal lands legally designated as National Forests or purchase units and other lands administered as part of the National Forest System by the USDA Forest Service.

Net change. The difference between the current and previous inventory estimates of growing-stock volume, divided by the number of growing seasons between surveys. Components of net change are ingrowth plus accretion, minus mortality, minus cull increment, minus removals.

Net green weight. The green weight of woody material less the weight of all unsound (rotten) material.

Net growth. The change, resulting from natural causes, in growing-stock volume during the period between surveys, divided by the number of growing seasons. Components of net growth are ingrowth plus accretion, minus mortality, minus cull increment.

Noncensus water. Streams/rivers between 120 feet and 1/8 mile in width, and bodies of water between 1 and 40 acres in size. The Bureau of the Census classifies such water as land.

Noncommercial forest land. Productive-reserved, urban, and unproductive forest land.

Noncommercial species. Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial wood products.

Nonforest land. Land that has never supported forests, or land formerly forested but now in nonforest use such as cropland, pasture, residential areas, and highways.

Nonsalvable dead tree. A dead tree with most or all of its bark missing that is at least 5.0 inches in diameter at breast height and is at least 10 feet in height.

Nonstocked area. A stand-size class of forest land that is stocked with less than 10 percent of minimum full stocking with all live trees.

Other cropland. Includes cropland used for cover crops; legumes, soil-improvement.

Other farmland. All nonforest land on a farm excluding cropland, pasture, and idle farmland; includes farm lanes, stock pens, and farmsteads.

Ownership class. A classification of forest land based upon ownership and nature of business or control of decision-making for the land. It encompasses all types of legal entities having ownership interest in the land, whether public or private.

Pasture land. Includes any pasture land other than cropland and woodland pasture. Can include lands which had applied lime fertilizer, seed, improved by irrigation, drainage, or control of weeds and brush.

Pastured cropland. Includes rotation pasture and grazing land that would have been used for crops without additional improvement.

Piling (piles). Relatively slender structural roundwood products that are cut to the maximum length possible (within top circumference and other specifications of strength, straightness, and soundness) that when nearly buried in the ground provide vertical or lateral support for buildings, foundations, bridges, docks, and other structures.

Plant byproducts. Wood products, such as pulp chips, recycled from manufacturing plant residues.

Poletimber stand. A stand-size class of forest land that is stocked with at least 10 percent of minimum full stocking with all live trees with half or more of such stocking in poletimber or sawtimber trees or both, and in which the stocking of poletimber exceeds that of sawtimber.

Poletimber tree. Live trees of commercial species meeting regional specifications of soundness and form and at least 5.0 inches in d.b.h., but smaller than sawtimber trees.

Preferred tree. A high-quality tree, from a lumber viewpoint, that would be favored in cultural operations. General characteristics include grade 1 butt log (if sawtimber size), good form, good vigor, and freedom from serious damage.

Productive-reserved forest land. Forest land sufficiently productive to qualify as timberland, but withdrawn from timber utilization through statute, administrative designation, or exclusive use for Christmas tree production.

Primary manufacturing plant. A plant that converts round timber into wood products such as woodpulp, lumber, veneer, cooperage, and dimension products.

Pulpwood. Roundwood converted into 4- or 5-foot lengths or chips, and chipped plant byproducts that are prepared for manufacture into woodpulp.

Recreation site. Parks, campgrounds, playing fields, tracks, etc.

Removals. The net growing-stock volume harvested or killed in logging, cultural operations--such as timber stand improvement--or land clearing, and also the net growing-stock volume neither harvested nor killed but growing on land that was reclassified from timberland to noncommercial forest land during the period between surveys. This volume is divided by the number of growing seasons.

Rights-of-way. Highways, pipelines, powerlines, canals.

Rotten tree. A live tree of commercial species that does not contain at least one 12-foot sawlog or two noncontiguous sawlogs, each 8 feet or longer, now or prospectively, and does not meet regional specifications for freedom from defect primarily because of rot; that is, more than 50 percent of the cull volume in the tree is rotten.

Rough tree. (a) The same as a rotten tree, except that a rough tree does not meet regional specifications for freedom from defect primarily because of roughness or poor form; also (b) a live tree of noncommercial species.

Roundwood products. Logs, bolts, total tree chips, or other round timber generated by harvested trees for industrial or consumer uses.

Salvable dead trees. A tree at least 5.0 inches in diameter at breast height that has recently died and still has intact bark. The tree may be standing, fallen, windthrown, knocked down, or broken off.

Sampling error. A measure of the reliability of an estimate, expressed as a percentage of the estimate. The sampling errors given in this report correspond to one standard deviation and are calculated as the square root of the variance, divided by the estimate, and multiplied by 100.

Saplings. Live trees 1.0 inch through 4.9 inches d.b.h.

Sapling-seedling stand. A stand-size class of forest land that is stocked with at least 10

percent of minimum full stocking with all live trees with half or more of such stocking in saplings or seedlings or both.

Sawlog. A log meeting regional standards of diameter, length, and freedom from defect, including a minimum 8-foot length and a minimum diameter inside bark of 6 inches for softwoods and 8 inches for hardwoods. (See specifications under Log-Grade Classification).

Sawlog portion. That part of the bole of a sawtimber tree between the stump and the sawlog top; that is, the merchantable height.

Sawlog top. The point on the bole of a sawtimber tree above which a sawlog cannot be produced. The minimum sawlog top is 7.0 inches diameter outside bark (d.o.b.) for softwoods and 9.0 inches d.o.b. for hardwoods.

Sawtimber stand. A stand-size class of forest land that is stocked with at least 10 percent of minimum full stocking with all live trees with half or more of such stocking in poletimber or sawtimber trees or both, and in which the stocking of sawtimber is at least equal to that of poletimber.

Sawtimber trees. Live trees of commercial species at least 9.0 inches d.b.h. for softwoods or 11.0 inches for hardwoods, containing at least one 12-foot sawlog or two noncontiguous 8-foot sawlogs, and meeting regional specifications for freedom from defect.

Sawtimber volume. Net volume in board feet, by the International 1/4-inch rule, of sawlogs in sawtimber trees. Net volume equals gross volume less deductions for rot, sweep, and other defects that affect use for lumber.

Seedlings. Live trees less than 1.0-inch d.b.h. and at least 1 foot in height.

Shrub. Woody-stemmed perennial plant, generally with no well-defined main stem and less than 12 feet in height at maturity; defined by species.

Shrub land. Land with shrub and/or tree cover and an obvious herbaceous understory; average canopy height of less than 25 feet and crown closure of less than 70 percent.

Single-family/custom house. House sheltering one family and immediately adjacent managed land.

Snag. Standing dead tree, with most or all of its bark missing that is at least 5.0 inches in diameter and at least 10 feet tall (does not include salvable dead).

Softwoods. Coniferous trees, usually evergreen and having needles or scalelike leaves.

Stand. A group of forest trees growing on forest land.

Stand area class. The area, contiguous to the plot, that is of the same overall stand size and major type group (hardwood, softwood, or uniform mixture of both).

Stand-size class. A classification of forest land based on the size class (that is, seedlings, saplings, poletimber, or sawtimber) of all live trees in the area.

Standard cord. A unit of measure for stacked bolts of wood, encompassing 128 cubic feet of wood, bark, and air space. Fuelwood cord estimates can be derived from cubic-foot estimates of growing stock by applying an average factor of 80 cubic feet of solid wood per cord. For pulpwood, a conversion of 85 cubic feet of solid wood per cord is used because pulpwood is more uniform.

Standard-lumber log grade. A classification of the quality of sawtimber volume based on standard sawlog grades for hardwoods, white pine, and southern pine. (Note: In Connecticut, red pine was graded using the southern pine guidelines. All specifications are shown under Log-Grade Classification).

State lands. Lands owned by the State or leased to the State for 50 years or more.

Stocking. The degree of occupancy of land by trees, measured by basal area and/or number of trees in a stand compared to the basal area and/or number of trees required to fully use the growth potential of the land (or the stocking standard). In the Eastern United States this standard is 75 square feet of basal area per acre for trees 5.0 inches d.b.h. and larger, or its equivalent in numbers of trees per acre for seedlings and saplings.

Two categories of stocking are used in this report: all live trees and growing-stock trees. The relationships between the classes and the percentage of the stocking standard are: nonstocked = 0 to 9, poorly stocked = 10 to 59, moderately stocked = 60 to 99, fully stocked = 100 to 129, and overstocked = 130 to 160.

Strip mine. Area devoid of vegetation due to current or recent general excavation.

Stump. The main stem of a tree from ground level to 1 foot above ground level, including the wood and bark.

Timberland. Forest land producing or capable of producing crops of industrial wood (more than 20 cubic feet per acre per year) and not withdrawn from timber utilization. Formerly known as commercial forest land.

Timber products. Roundwood (round timber) products and manufacturing plant byproducts harvested from growing-stock trees on timberland; from other sources, such as cull

trees, salvable dead trees, limbs, tops and saplings; and from trees on noncommercial forest and nonforest lands.

Timber removals. The growing-stock or sawtimber volume of trees removed from the inventory for roundwood products, plus logging residues, volume destroyed during land clearing, and

volume of standing trees on land that was reclassified from timberland to noncommercial forest land (See Table 53).

Top. The wood and bark of a tree above the merchantable height (or above the point on the stem 4.0 inches in diameter outside bark). It generally includes the uppermost stem, branches, and twigs of the tree, but not the foliage.

Tract/multiple family. Multiple individual residential units or attached units (e.g. apartment buildings, condominiums) and immediately adjacent managed land.

Transportation right-of-way. Land associated with highways and railroads.

Tree class. A classification of the quality or condition of trees for sawlog production. Tree class for sawtimber trees is based on their present condition. Tree class for poletimber trees is a prospective determination--a forecast of their potential quality when they reach sawtimber size (11.0 inches d.b.h. for hardwoods, 9.0 inches d.b.h. for softwoods).

Trees. Woody plants that have well-developed stems and are usually more than 12 feet in height at maturity.

Unproductive forest land. Forest land that is incapable of producing 20 cubic feet per acre per year of industrial wood under natural conditions, because of adverse site conditions.

Unused manufacturing residues. Plant residues that are dumped or destroyed and not recovered for plant byproducts.

Upper-stem portion. That part of the main stem or fork of a sawtimber tree above the sawlog top to a diameter of 4.0 inches outside bark, or to the point where the main stem or fork breaks into limbs.

Urban forest land. Noncommercial forest land within urban areas that is completely surrounded by urban development (not parks), whether commercial, industrial, or residential.

Utility right-of-way. Land associated with pipeline and electric transmission lines; identified only if vegetative cover differs from adjacent land use.

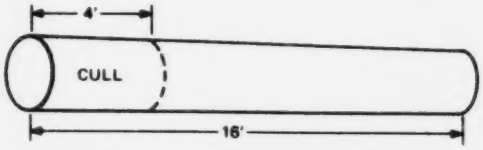
Veneer log or bolt. A roundwood product from which veneer is sliced or sawn that usually meets certain minimum standards of diameter, length, and defect.

Volume suitable for pulpwood. The sound volume (only rotten cull excluded) of growing-stock and rough trees.

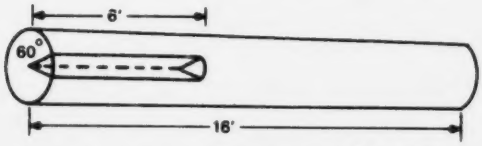
Windbreak/hedgerow. Linear areas, less than 120 feet in width; with predominantly tree and/or shrub vegetation.

Methods of determining scaling deduction.

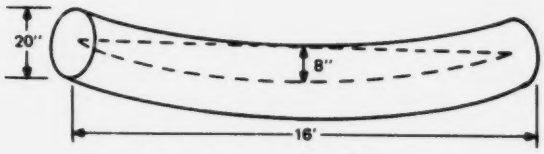
(Examples based on a 16-foot log with 20-inch scaling diameter)



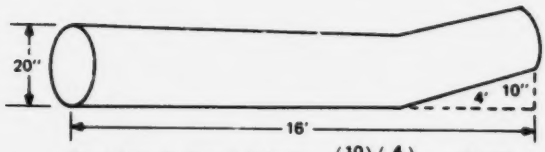
Defect section (rule 1): Percent deduction = $\frac{4}{16}$ = 25%



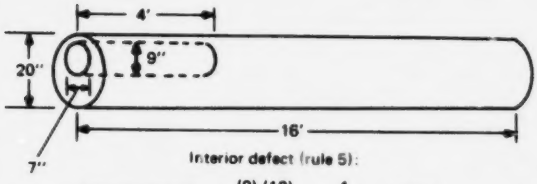
Defect section (rule 2): Percent deduction = $\left(\frac{6}{16}\right)\left(\frac{60}{360}\right)$ = 6-1/4%



Sweep (rule 3): Percent deduction = $\frac{8 \cdot 2}{20}$ = 30%



Crook (rule 4): Percent deduction = $\left(\frac{10}{20}\right)\left(\frac{4}{16}\right)$ = 12-1/2%



Interior defect (rule 5):

Percent deduction = $\frac{(8)\ (10)}{(20-1)^2} \times \frac{4}{16}$ = 5-5/9%

In practice each ellipse axis can be divided by (20–1)

Thus $\frac{8}{19}$ = .4, $\frac{10}{19}$ .5, and (.4) (.5) $\left(\frac{4}{16}\right)$ = 5%

From: Grosenbaugh, L.R. 1952. Shortcuts for cruisers and scalers. U.S. Dep, Agric. For. Serv. South For Exp. Stn. Occas. Pap. 126.

STANDARD GRADES FOR HARDWOOD FACTORY LUMBER LOGS

Grading Factors		Log grades							
		F1			F2				F3
Position in tree		Butts only	Butts & uppers		Butts & Uppers				Butts & uppers
Scaling diameter, inches		13-15[a]	16-19	20+	11+[b]	12+			8+
Length without trim, feet		10+			10+	8-9	10-11	12+	8+
Required clear cuttings[c] of each of 3 best faces[d]	Min. length, feet	7	5	3	3	3	3	3	2
	Max. number	2	2	2	2	2	2	3	No limit
	Min. proportion of log length required in clear cutting	5/6	5/6	5/6	2/3	3/4	2/3	2/3	1/2
Maximum sweep & crook allowance	For logs with less than ¼ of end in sound defects	15%			30%				50%
	For logs with more than ¼ of end in sound defects	10%			20%				35%
Maximum scaling	deduction	40%[e]			50%[f]				50%

End defects although not visible in standing trees, are important in grading cut logs. Instructions for dealing with this factor are contained in Forest Prod. Lab. Rpt. D 1737.

[a]Ash and basswood butts can be 12 inches if they otherwise meet requirements for small #1's.
[b]Ten-inch logs of all species can be #2 if they otherwise meet requirements for small #1's.
[c]A clear cutting is the portion of a face, extending the width of the face, that is free of defects.
[d]A face is ¼ of the surface of the log as divided lengthwise.
[e]Otherwise #1 logs with 41-60% deductions can be #2.
[f]Otherwise #2 logs with 51-60% deductions can be #3.

From: Vaughan, C. L., A. C. Wollin, K. A. McDonald, and E. H. Bulgrin. 1966. Hardwood log grades for standard lumber. USDA For. Serv. Res. Pap. FPL-63.

STANDARD SPECIFICATIONS FOR HARDWOOD CONSTRUCTION LOGS[a]

Position in tree		Butt & upper
Min. diameter, small end		8 inches +
Min. length, without trim		8 feet
Clear cuttings		No requirements.
Sweep allowance, absolute		1/4 diameter small end for each 8 feet of length.
Sound surface defects	Single knots	Any number, if no one knot has an average diameter above the callus in excess of 1/3 of log diameter at point of occurrence.
	Whorled knots	Any number if sum of knot diameters above the callus does not exceed 1/3 of log diameter at point of occurrence.
	Holes	Any number provided none has a diameter over 1/3 of log diameter at point of occurrence, and none extends over 3 inches into included timber.[b]
Unsound surface defects		Same requirements as for sound defects if they extend into included timber.[b] No limit if they do not.
End defects	Sound	No requirements.
	Unsound	None allowed; log must be sound internally, but will admit 1 shake not to exceed 1/4 the scaling diameter and a longitudinal split not extending over 5 inches into the contained timber.

[a]These specifications are minimum for the class. If, from a group of logs, factory logs are selected first, thus leaving only non-factory logs from which to select construction logs, then the quality range of the construction logs so selected is limited, and the class may be considered a grade. If selection for construction logs is given first priority, then it may be necessary to subdivide the class into grades.
[b]Included timber is always square, and dimension is judged from small end.

From: Rast, E. D., D. L. Sonderman, and G. L. Gammon. 1973. A guide to hardwood log grading (Revised). USDA For. Serv. Gen. Tech. Rep. NE-1.

EASTERN WHITE PINE SAWLOG GRADE SPECIFICATIONS

GRADING FACTOR	LOG GRADE 1	LOG GRADE 2	LOG GRADE 3	LOG GRADE 4
(1) MINIMUM SCALING DIAMETER (inches)	14[1]	6	6	6
(2) MINIMUM LOG LENGTH (feet)	10[2]	8	8	8
(3) MAXIMUM WEEVIL INJURY (number)	None	None	2 injuries[3]	No limit
(4) MINIMUM FACE REQUIREMENTS	Two full length or four 50% length good faces.[4] (In addition, log knots on balance of faces shall not exceed size limitations of grade 2 logs.)	No GOOD FACES REQUIRED. Maximum diameter of log knots on three best faces: SOUND RED KNOTS not to exceed 1/6 scaling diameter and 3 inch maximum. DEAD OR BLACK KNOTS including overgrown knots not to exceed 1/12 scaling diameter and 1½ inch maximum.	No GOOD FACES REQUIRED. Maximum diameter of log knots on three best faces: SOUND RED KNOTS not to exceed 1/3 scaling diameter and 5 inch maximum. DEAD OR BLACK KNOTS including overgrown knots not to exceed 1/6 scaling diameter and 2½ inch maximum.	Includes all logs not qualifying for No. 3 or better and judged to have at least one-third of their gross volume in sound wood suitable for manufacture into standard lumber.
(5) MAXIMUM SWEEP OR CROOK ALLOWANCE (percent)	20	30	40	66⅔
(6) MAXIMUM TOTAL SCALING DEDUCTION (percent)	50	50	50	66⅔

After the tentative log grade is established from face examination, the log will be reduced in grade whenever the following defects are evident:

(7) CONKS, PUNK KNOTS, AND PINE BORER DAMAGE ON BARK SURFACE[5]

Degrade one grade if present on one face.
Degrade two grades if present on two faces.
Degrade three grades if present on three or more faces.

(8) LOG END DEFECTS: RED ROT, RING SHAKE, HEAVY STAIN AND PINE BORER DAMAGE OUTSIDE HEART CENTER OF LOG[5]

Consider log as having a total of 8 quarters (4 on each end) and degrade as indicated below:
Degrade one grade if present in 2 quarters of log ends.
Degrade two grades if present in 3 or 4 quarters of log ends.
Degrade three grades if present in 5 or more quarters of log ends.

[1]12 and 13 inch logs with four full length good faces are acceptable.
[2]8 foot logs with four full length good faces are acceptable.
[3]8 foot No. 3 logs limited to one weevil injury.
[4]Minimum 50% length good face must be at least 6 feet.
[5]Factors 7 and 8 are not cumulative (total degrade based on more serious of the two). No log to be degraded below grade 4 if net scale is at least one-third gross log scale.

From: Ostrander, M. D., and R. L. Brisbin, 1971. Sawlog grades for eastern white pine. USDA For. Serv. Res. Pap. NE-205.

SOUTHERN PINE SAWLOGS

Grade 1. Logs with 3 or 4 clear faces.[1] Code 1.

Grade 2. Logs with 1 or 2 clear faces. Code 2.

Grade 3. Logs with no clear faces. Code 3.

After the tentative log grade is established from above, the log will be degraded one grade for each of the following, except that no log can be degraded below grade 3.

1. *Sweep.* Degrade any tentative 1 or 2 log one grade if sweep amounts to 3 or more inches and equals or exceeds one third (1/3) the diameter inside bark at small end. This is the final grade if there is no evidence of heart rot.

2. *Heart rot.* Degrade any tentative 1 or 2 log one grade if conk, massed hyphae, or other evidence of advanced heart rot is found anywhere in it.

[1] A face is one-fourth of the circumference in width extending full length of the log. Clear faces are those free of: knots measuring more than one-half inch in diameter, overgrown knots of any size, holes more than one-fourth inch in diameter. The faces may be rotated if necessary to obtain the maximum number of clear ones.

From: Schroeder, J. G., R. A. Campbell, and R. C. Rodenbach. 1968. Southern pine sawlogs for yard and structural lumber. USDA For. Serv. Res. Pap. SE-39.

Tree Species of Connecticut (as encountered on field plots)

Scientific Name[a]	Common Name(s)	Occurrence[b]
	Softwoods	
Chamaecyparis thyoides (L.)B.S.P.	Atlantic white-cedar	vr
Juniperus virginiana L.	eastern redcedar	c
Picea abies (L.) Karst.	Norway spruce	r
Pinus resinosa Ait.	red pine	r
Pinus rigida Mill.	pitch pine	r
Pinus strobus L.	eastern white pine	c
Pinus sylvestris L.	Scotch pine	r
Thuja occidentalis L.	northern white-cedar	vr
Tsuga canadensis (L.) Carr.	eastern hemlock	vc
	Hardwoods	
Acer pensylvanicum L.[c]	striped maple	vr
Acer rubrum L.	red maple	vc
Acer saccharum Marsh.	sugar maple	c
Ailanthus altissima (Mill.) Swingle[c]	ailanthus	vr
Betula alleghaniensis Britton	yellow birch	c
Betula lenta L.	sweet birch	vc
Betula papyrifera Marsh.	paper birch	c
Betula populifolia Marsh.[c]	gray birch	r
Carpinus caroliniana Walt.[c]	American hornbeam	r
Carya Nutt.	hickory	c
Castanea dentata (Marsh.)Borkh.	American chestnut	vr
Cornus florida L.	flowering dogwood	r
Fagus grandifolia Ehrh.	American beech	c
Fraxinus americana L.	white ash	c
Fraxinus nigra Marsh.	black ash	r
Fraxinus pennsylvanica Marsh.	green ash	vr
Juglans cinerea L.	butternut	vr
Liriodendron tulipfera L.	yellow-poplar	r
Malus Mill.[c]	apple	r
Nyssa sylvatica Marsh.	blackgum or black tupelo	r
Ostrya virginiana (Mill.) K. Koch[c]	eastern hophornbeam	r
Platanus occidentalis L.	sycamore	vr
Populus deltoides Bartr. ex Marsh.	eastern cottonwood	r
Populus grandidentata Michx.	bigtooth aspen	r
Populus tremuloides Michx.	quaking aspen	r
Prunus pensylvanica L. f.[c]	pin cherry	vr
Prunus serotina Ehrh.	black cherry	c

Scientific Name[a]	Common Name(s)	Occurrence[b]
Quercus alba L.	white oak	vc
Quercus coccinea Muenchh.	scarlet oak	c
Quercus michauxii Nutt.	swamp chestnut oak	vr
Quercus palustris Muenchh.	pin oak	r
Quercus prinus L.	chestnut oak	c
Quercus rubra L.	northern red oak	vc
Quercus velutina Lam.	black oak	c
Robinia pseudoacacia L.	black locust	r
Sassafras albidum (Nutt.) Nees[c]	sassafras	c
Tilia americana L.	American basswood	r
Ulmus americana L.	American elm	c
Ulmus rubra Muhl.	slippery elm	vr

[a]Names according to: Little, Elbert L., Jr. Checklist of United States Trees (native and naturalized). Agric. Handb. 541 Washington, DC: U.S Department of Agriculture, Forest Service; 1979. 375 p.

[b]Occurrence is based on the proportion of the species among all live trees 5.0 inches d.b.h. or larger encountered on forest survey field plots: vr = very rare (0.05%), r = rare (0.05 to 0.49%), c = common (0.5 to 4.9%), and vc = very common (≥5.0%).

[c]Noncommercial species.

Relative Density[a], Relative Frequency[b], Importance Value[c], and Species Frequency[d] of Lesser Woody Stems[e] by Species, Connecticut, 1985

Species	Relative Density	Relative Frequency	Importance Value	Species Frequency
Common juniper	.05	.10	.08	1.06
Eastern redcedar	.27	.73	.50	7.94
Norway spruce	.05	.05	.05	.53
Red pine	.03	.10	.06	1.06
Pitch pine	.07	.30	.18	3.18
Eastern white pine	.67	2.38	1.52	25.93
Scotch pine	.01	.05	.03	.53
Northern white-cedar	.01	.05	.03	.53
Eastern hemlock	.55	1.94	1.25	21.17
Striped maple	.19	.30	.24	3.18
Red maple	5.90	8.29	7.10	90.48
Sugar maple	2.35	3.35	2.85	36.51
Ailanthus	.01	.05	.03	.53
Alder species	1.70	.54	1.12	5.83
Serviceberry	.49	.68	.58	7.41
Azalea species	.39	.25	.32	2.65
Barberry	3.71	.68	2.19	7.41
Yellow birch	.81	2.38	1.60	25.93
Sweet birch	2.09	5.00	3.55	54.50
Paper birch	.13	.78	.46	8.47
Gray birch	.24	.39	.32	4.24
American hornbeam	.88	1.07	.98	11.65
Hickory species	.75	2.77	1.76	30.16
Bitternut hickory	.01	.05	.03	.53
Pignut hickory	.13	.83	.48	9.00
Shagbark hickory	.15	1.27	.71	13.76
Mockernut hickory	.01	.10	.05	1.06
American chestnut	.61	.97	.79	10.59
American bittersweet[f]	-	-	-	1.59
Clematis species[f]	-	-	-	.53
Sweetfern	.05	.10	.08	1.06
Flowering dogwood	.26	.78	.52	8.47
Alterate-leaved dogwood	.11	.20	.15	2.12
Silky dogwood	.13	.10	.12	1.06
Round-leaved dogwood	.14	.10	.12	1.06
Panicled dogwood	.97	.54	.75	5.83
Red-osier dogwood	.41	.30	.35	3.18
Hawthorn species	.03	.10	.07	1.06
American hazelnut	.93	.78	.85	8.47
Beaked hazelnut	.30	.25	.28	2.65
American beech	.61	1.56	1.08	16.94
White ash	1.57	4.37	2.97	47.62
Black ash	.05	.15	.10	1.59
Green ash	.02	.10	.06	1.06
Creeping snowberry[f]	-	-	-	5.30
Teaberry[f]	-	-	-	1.59
Huckleberry	1.19	.20	.69	2.12
Witch-hazel	2.37	2.38	2.37	25.93
Winterberry holly	.09	.15	.12	1.59
Butternut	.01	.15	.08	1.59
Sheep laurel	.80	.34	.57	3.71
Mountain laurel	3.36	1.60	2.48	17.47
Common spicebush	3.86	2.28	3.07	24.87
Yellow-poplar	.04	.64	.34	6.83
Bush honeysuckle	1.46	.54	1.00	5.83
Apple species	.07	.25	.16	2.65
Partridgeberry[f]	-	-	-	1.06
Black tupelo	.14	.44	.29	4.77
Eastern hophornbeam	1.47	1.36	1.42	14.82
Virginia creeper[f]	-	-	-	4.77

Relative Density[a], Relative Frequency[b], Importance Value[c], and Species Frequency[d] of Lesser Woody Stems[e] by Species, Connecticut, 1985 (Continued)

Species	Relative		Importance	Species
	Density	Frequency	Value	Frequency
American sycamore	.01	.10	.05	1.06
Eastern cottonwood	.03	.20	.12	2.12
Bigtooth aspen	.13	.68	.40	7.41
Quaking aspen	.18	.68	.43	7.41
Pin cherry	.07	.15	.11	1.59
Black cherry	3.00	3.50	3.25	38.10
Chokecherry	.33	.68	.51	7.41
White oak	1.86	4.95	3.40	53.97
Scarlet oak	.32	1.94	1.13	21.17
Scrub, bear oak	.02	.05	.04	.53
Pin oak	.01	.05	.03	.53
Chestnut oak	.47	1.07	.77	11.65
Northern red oak	1.88	5.72	3.80	62.44
Black oak	1.22	3.88	2.55	42.33
Buckthorn species	.11	.20	.16	2.12
Smooth sumac	.05	.05	.05	.53
Staghorn sumac	.19	.39	.29	4.24
Poison ivy[f]	-	-	-	14.82
Poison sumac	.03	.05	.04	.53
Currant species	.06	.05	.06	.53
Black locust	.01	.05	.03	.53
Rose species	.65	.68	.67	7.41
Rubus species	4.50	1.90	3.20	20.64
Willow species	.30	.15	.23	1.59
American elderberry	.10	.15	.13	1.59
Sassafras	1.06	1.65	1.36	17.99
Greenbrier[f]	-	-	-	10.59
Spirea species	3.37	1.07	2.22	11.65
American basswood	.07	.25	.16	2.65
Elm species	.01	.10	.05	1.06
American elm	.16	.73	.45	7.94
Slippery elm	.01	.05	.03	.53
American bladdernut	.07	.10	.09	1.06
Blueberry	15.14	4.56	9.85	49.74
Viburnum species	.64	.34	.49	3.71
Maple-leaved viburnum	8.72	3.40	6.06	37.04
Hobblebush viburnun	.50	.54	.52	5.83
Wild raisin	.01	.05	.03	.53
Arrowwood	1.97	1.17	1.57	12.70
Nannyberry	.04	.10	.07	1.06
Blackhaw	.09	.05	.07	.53
Grape[f]	-	-	-	6.88
Unknown vine[f]	-	-	-	2.12
Unknown dwarf shrub[f]	-	-	-	.53
Unknown deciduous shrub	10.15	3.06	6.60	33.34
Unknown evergreen shrub	.02	.10	.06	1.06
Unknown tree	.22	.54	.38	5.83

[a](Total number of stems for a species/total number of stems for all species) x 100.
[b](Frequency of a species/total of frequencies of all species) x 100. Frequency = Number of plots where a species occurs/total number of plots.
[c]Average of relative density and relative frequency of a species.
[d](Number of plots where a species occurs/total number of plots) x 100.
[e]Includes shrub and vine species and tree stems less than 5.0 inches d.b.h.
[f]Not included in calculations of importance value.

Metric Equivalents of Units Used in This Report

1 acre = 4,046.86 square meters or 0.404686 hectares
1,000 acres = 404.686 hectares
1,000,000 acres = 404,686 hectares
1 board foot[a] = 0.00348 cubic meters or 3,480 cubic centimeters
1,000 board feet[a] = 3.48 cubic meters
1,000,000 board feet[a] = 3,480 cubic meters
1 cubic foot = 0.028317 cubic meters
1,000 cubic feet = 28.317 cubic meters
1,000,000 cubic feet = 28,317 cubic meters
1 cord (wood, bark, and air space) = 3.6246 cubic meters
1 cord (solid wood, pulpwood) = 2.4069 cubic meters
1 cord (solid wood, other than pulpwood) = 2.2654 cubic meters
1,000 cords (pulpwood) = 2,406.9 cubic meters
1,000 cords (other products) = 2,265.4 cubic meters
1 inch = 2.54 centimeters or 0.0254 meters
1 foot = 30.48 centimeters or 0.3048 meters
Breast height = 1.4 meters above ground level
1 mile = 1.609 kilometers
1 square foot = 929.03 square centimeters or 0.0929 square meters
1 square foot per acre basal area = 0.229568 square meters per hectare
1 ton = 907.1848 kilograms
1,000 tons = 907.1848 metric tons

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[a]Although 1,000 board feet is theoretically equivalent to 2.36 cubic meters, this is true only when a board foot is actually a piece of wood with a volume 1/12 of a cubic foot. The International 1/4-inch log rule is used by the USDA Forest Service in the East to estimate the product potential in board feet. The reliability of the estimate obtained by conversion will vary with the size of the log measure. The conversion given here, 3.48 cubic meters, is based on the cubic volume of a log 16 feet long and 15 inches in diameter inside bark (d.i.b.) at the small end. This conversion could be used for average comparisons when accuracy of 10 percent is acceptable. Because the board foot unit is not a true measure of wood volume and because products other than dimension lumber are becoming important, this unit may eventually be phased out and replaced by the cubic meter.

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Dickson, David R.; McAfee, Carol L. 1988. Forest Statistics for Connecticut--1972 and 1985. Resour. Bull. NE-105. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 102 p.

A statistical report on the third forest survey of Connecticut (1984). Findings are displayed in 77 tables containing estimates of forest area, numbers of trees, timber volume, tree biomass, and timber products output. Data are presented at two levels: state and county.

ODC (746)--905.2
Keywords: Forest survey, inventory, area, volume, biomass.

Headquarters of the Northeastern Forest Experiment Station are in Broomall, Pa. Field laboratories are maintained at:

- Amherst, Massachusetts, in cooperation with the University of Massachusetts.
- Berea, Kentucky, in cooperation with Berea College.
- Burlington, Vermont, in cooperation with the University of Vermont.
- Delaware, Ohio.
- Durham, New Hampshire, in cooperation with the University of New Hampshire.
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